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PROJECT CENSORED'S TOP 25 NEWS STORIES

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By Jordi Solà-Soler. Dr Robert Moon's model of the Platonic solids, which proposes how protons in the atomic nucleus may be arranged, is taken a step further with an alternative reordering that allows the free spin of proton shells within each geometric structure.

SCIENCE NEWS

In this edition, we present an extract from a rare 1951 US Navy manual about magnetic amplifiers, now freely available with a foreword by editor George Trinkaus on this "lost technology" and its multiple capabilities in electrical and electronics engineering.

NAN MADOL, City of Spirits on the Reef of Heaven

By Alistair Coombs. The West Pacific megalithic complex of Nan Madol, with its constructions of prismatic basalt columns linked by waterways, served as a spiritual centre for the Pohnpeian ancestors and reflected a sunken cultural heritage connected with the Pleiades star cluster.

SHADOW OF NEMESIS: The Sphinx and The Great Pyramid—Part 2 of 2

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THE TWILIGHT ZONE

We feature an article by Steven A. Arts on the search for the lost city of Tartessos, known to the ancient Greeks, Romans and Hebrews and believed to be buried near the mouth of the Guadalquivir River in southwestern Spain. Scientific studies have uncovered promising finds.

REVIEWS-Books

"Father Earth" by Olof Smit

"Primal Nutrition" by Ron Schmid, ND

"They Exist: A Review of Key Literature..." by Piers Morris

"Secret History: Conspiracies..." by Nick Redfern

"When the Gods Return" by Jack Barranger

"The Soul of Ancient Egypt" by Robert Bauval and Ahmed Osman

"Engaging the Extraterrestrials" by Noel Huntley

"Surviving AI" by Calum Chace

"Genesis for the Space Race" by John B. Leith via Robyn Andrews

"Hybrids: So You Think You Are Human" by Tanis Helliwell

"Playing God" by Benjamin Nowland
"The Globalization of War" by Michel Chossudovsky
"Population Control" by Jim Marrs
"The EU: A Corporatist Racket" by David Barnby

REVIEWS-DVD

"Packing for Mars" by Jacobmedia/Screen Addiction

REVIEWS-Music

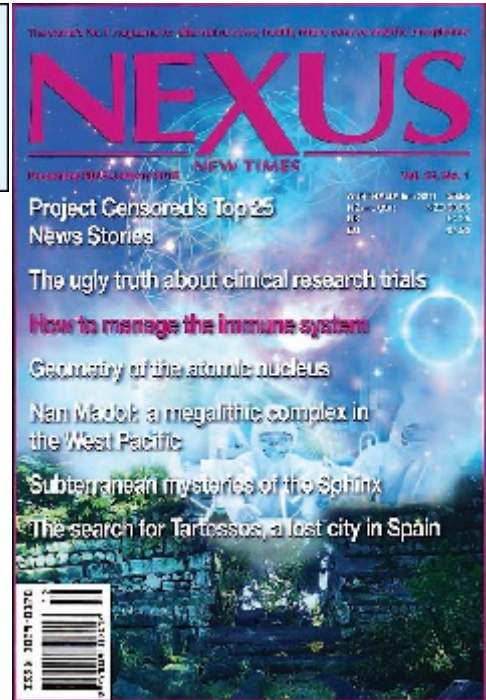
"Fatteliku" by Youssou N'Dour et le Super Etoile de Dakar
"Amanecer Andino (Andean Sunrise)" by Inkuyo
"Celebration of a Legend" by George Telek
"Zoy Zoy" by Tal National

CARTOONS

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Editorial

The crazy, busy time that I mentioned in my last editorial shows no sign of abating. I find myself writing this editorial while sitting in a quiet house in Boulder, Colorado, looking at squirrels scampering across the first snow of the season. More on my travels and adventures next issue.

Meanwhile, this issue has the usual assortment of news and information not found in the mainstream media. Project Censored has again released its top 25 most underreported news stories, marking almost 40 years of this project. The criteria for this independent project are stories not covered by the US corporate media, and as always there are some interesting items among some predictable ones.

We're pleased to be running an article by Leon Horton on the pitfalls of trialing products and pharmaceutical drugs on humans, and I've asked him to prepare an article for our next issue on the fraudulent practice of testing drugs and products on animals to "prove" human safety.

Still on health, Walter Last is back with an important article on how to manage the immune system. I have to take my hat off to Walter, as he is continually finding new and interesting tidbits which he asks to be included in his articles at the last minute. One such item this time is a research paper showing that the brain tissue of deceased Alzheimer's disease patients contains fungal infections (see Global News). Given that AD is still a name allocated to a collection of symptoms only, maybe it is time for a reexamination of the role of fungal pathogens in the human body.

Part 2 of the "Sacred Solids in the Atomic Nucleus" article continues the examination of Dr Robert Moon's model of platonic solids and how protons in the atomic nucleus can be arranged. As mentioned in earlier issues of NEXUS, we know of one successful antigravity experiment wherein the main "factor" involved an understanding of the role of the "shape" of the atomic nucleus.

I'm pleased at long last to give George Trinkaus a mention in this issue. George is an avid accumulator and researcher of suppressed and "lost" technology, as you can see from a visit to his website. In Science News, we present an extract from a rare 1951 US Navy manual about magnetic amplifiers. Also see his letter in answer to critics of Nikola Tesla.

For those into ancient mysteries and lost cities, we have two articles this time. Alistair Coombs has done a great job covering the mysteries and marvels of Nan Madol, a megalithic complex near Pohnpei in the West Pacific. We also look at what some consider to be a contender for "Atlantis in Spain" with an article by Steven Arts about the lost city of Tartessos, located somewhere in southwestern Spain. See Twilight Zone.

Still on ancient mysteries, we're pleased to continue Jack Heart's fascinating coverage of explorations under the Great Pyramid and the Sphinx. I note that recently there has been more activity at Giza, and suggestions of

underground chambers are again coming to light. Stay tuned for more about this in the next issue.

Those who like to plan ahead might want to make a note that I've booked the Novotel Twin Waters Resort on the Sunshine Coast of Queensland for the 2016 NEXUS Conference on 18-19-20 June. We'll give a list of speakers in our next issue and will post it on our website after Christmas.

Duncan

Letters to the Editor ...

NASA's Disinformation

Hello Duncan: I have subscribed to NEXUS magazine for many years. I think that one of the most important subjects in your broad net of interests is the *secret space program* and resulting missions to other moons and planets, which according to the late Ben Rich, engineer with Lockheed Martin's Skunk Works®, has been in progress from possibly the late 1950s.

We (particularly us older folk) don't all have the savvy and means to keep up in this computer age. The genuine stuff on YouTube regarding cities ancient and modern on the Moon is absolutely incredible. How NASA gets away with its disinformation is criminal.

It would appear that the astronomer-physicist Morris K. Jessup was correct in his assumption that a civilisation of human-like beings shared and inhabited Earth, the Moon and Mars. Unfortunately, it proved a dangerous and fatal revelation for him.

Highest regards,

Mike
Nottingham, UK

Action against Pollution

Hi Duncan: I've been observing a lot of climate change discussion over the last 12 months or so, and have come to the conclusion that whether it's true or not does not matter.

What *does* matter is that while we are caught up in a debate over facts, science, observations and conspiracies, we are not concentrating on what we (humanity) should be doing. I believe our planet is in serious trouble. The morally right thing to do by the planet is to stop abusing it, and one way to do that is to stop pollution.

In this context, governments adopting a climate change policy which favours the natural environment is a good thing. Whether or not those same governments design such policies to benefit the wealthy, or if it's just lip service and they don't actually enact it meaningfully, the point is that there is a policy that says they want to reduce pollution. I believe that's a small step in the right direction.

Kind regards,

David C.
Brisbane, Queensland, Australia

Cosmic Radiation Danger

Hi friends: Here we go again! In 1957, even before the Van Allen belts were officially discovered, the Russian scientist Professor Stanjoekowitsj said that when astronauts walk on the Moon they would need heavy metal suits to protect against cosmic radiation and protective vehicles to explore the Moon. This is 100 per cent evidence that the Russians were aware of the danger of cosmic radiation on the Moon.

Here is a translated quote from a 1957 news article that was published in the Netherlands. It is from one of the last lines in the article: "Humans should wear heavy metal suits to protect them from cosmic radiation that is constantly present on the Moon. Also, it is necessary for humans to drive a heavy protective vehicle to move around on the Moon."

Regards
Adrian

Tesla Critics Berated

Dear Duncan: The academic antipathy towards Nikola Tesla should not be underestimated.

I learned this directly when I gave my first Tesla publication, *Tesla Coil* (1986), to a Claremont Colleges physics professor who flatly refused to read it.

In a recent radio interview, the director of the Center for SETI [search for extraterrestrial intelligence] Research, Dr Seth Shostak, when asked by a caller for his comments on Tesla's wireless power, smugly retorted, "If Tesla's system worked, he would have received the Nobel Prize"—thus shutting down what might have been an interesting conversation. This is typical. (Actually, Tesla *was* offered a Nobel, which he refused.)

The persistent pressure of the Tesla underground movement has thwarted the establishment's campaign to render Tesla completely invisible, and it is this movement that has forced out of the closet and into taboo territory the likes of Professor W. Bernard Carlson (author of *Tesla: Inventor of the Electrical Age*, reviewed in NEXUS August-September 2015). But the persistent pressure of academic tradition will still tempt the academic biographer to make invidious remarks in order to win points with the anti-Tesla academic culture.

Carlson criticises Tesla for publishing in popular science magazines instead of the approved scientific journals. But Tesla professionally was not a scientist: he was an engineer who gave many lectures to meetings of the AIEE [American Institute of Electrical Engineers]. A number of his articles were published in *The Electrical Experimenter* and other intelligent popular science magazines of the time, which have no counterparts today.

Finally, consistent with academic fashion, Carlson insists that Tesla's radio and wireless power do not work—the ultimate dismissal. This was the reason for his downfall, academics like to say.

As a publisher of Tesla technology material for 30 years, I can testify that neither academia nor the environmentalist liberal left that orbits around it has shown a hint of interest in reviving the technology of an inventor who declared in 1933: "Electric power is everywhere present in unlimited quantities and can drive the world's machinery without the need of coal, oil, gas, or any other of the common fuels."

George Trinkaus
High Voltage Press, Oregon, USA
TeslaPress.com

Crop Circles as Blueprints

Hi Duncan: Reading Andy Thomas's round-up of the latest crop circles from around the world in the October-November edition of NEXUS [22/06], I was struck by two things: the absolute lack of any concise explanation for such a continuous (and continuing) worldwide phenomenon, and, more importantly, what appears to be a concise correlation *between* the circle designs. These observations led me to ask the question: are crop circles actually mechanical blueprints?

Having done my fair share of cartographic imaging for new inventions over the years, wherein a device's design for the preliminary working model is "built up" by the multiple layering (sectioning) of images, each seemingly unrelated to the next but the whole enabling the machine's end operation, I was immediately struck by the similarity of these sectioning blueprints with crop circle designs.

I asked myself: what if these circles are individual sections of a greater whole design? I decided that a little investigation may enlighten my suspicions.

Having an enquiring mind, I have built up over many years quite a large catalogue of aerial photos of such crop circles. And so I began my enquiry by correlating ones with a similar "type" of design feature. This tells me that there are basically two types of crop circle design.

The first is the "even" design; that is, both sides of the design correlate with (mirror image) each other, making, for example, the pretty "floral" designs—but with one proviso, which is that many of these feature an "offset" aspect such as the distant solid circle in the Strzelno example, which will become more important further on.

The second design can best be described as "altogether offset"; that is, the design appears concise in its arrangement but has a singular offset built into its design. The crop circles at Etchilhampton, Maiden Castle, Hoo Mill and Ravenna Waterski Club are all good offset examples.

Further, many of these, the Aeroporto di Torino-Aeritalia, Etchilhampton, Maiden Castle, Hoo Mill and Ravenna Waterski Club among them, all *scream* mechanical design—specifically one slice, one sectioned piece of an interlocking and/or oscillation feature which would do any patent office applicant proud.



Stroud Green, near Hawkwell, Essex, UK, 21 July 2015, © CropCircleConnector.com

One example noted by Andy as "slightly wonky", from Stroud Green, Essex, on 21 July, is a perfect example. It's the slightly wonky aspect which gives it away, as any pendulum-maker or steam-motor restorer will tell you. It's a section of an harmonic counterbalance revolving around a pivot.

Many aspects of Viktor Schauberger's vortex energy inventions—the Repulsine and Implosion motors, designs far beyond their time—can be seen in these crop designs.

Any child who has made a hole in the end of a school ruler with a penknife, tied therein a length of string and whirled it above his or her head as a "bullroarer" can tell you that the results achieved (a great roaring, whirring sound) have little to do with the original purpose of the implement used to achieve it! It is my suspicion that these designs will eventually prove to be in precisely the same category.

Further, many magnetic power inventions use precisely such offset designs to achieve their unpowered perpetual motion.

I hope my suspicions will fertilise other enquiring minds to pursue such a train of thought, particularly someone with the time and the wherewithal to piece (layer) together the myriad crop circle designs out there in different configurations.

Remember, there are rare eyewitness accounts of the "little, brilliant globes of light" caught making these things, and their precision says that they're not just horsing around in the dark!

Regards,

Peter,
Queensland, Australia



UN PLANS TO IMPLEMENT UNIVERSAL BIOMETRIC ID BY 2030

Thanks to a series of interlocking treaties and international agreements, the governance of this planet is increasingly becoming globalised and centralised, but most people don't seem alarmed.

During 25 to 27 September, the United Nations launched a "new universal agenda" for humanity. The Pope travelled to New York City to give the address that kicked off this conference, thus giving his considerable endorsement to this new plan. Virtually every nation on the entire planet willingly signed up for the 17 goals that are included in this plan, but this stunning turn of events made very few international headlines.



The UN's 17 Global Goals for Sustainable Development

One of these 17 goals is to have biometric identification cards in the hands of every single man, woman and child on the entire planet by the year 2030. The United Nations is already working hard towards the implementation of this goal— particularly among refugee populations. The UN has partnered with Accenture to implement a biometric identification system that reports information "back to a central database in Geneva".

The so-called Identification for Development (ID4D) initiative was originally launched by the World Bank, which is proud to be working side by side with the UN to get "legal identity" into the hands of all.

This is being framed as a "humanitarian" venture right now, but will it always stay that way? (Source: *ActivistPost.com*, 1 November 2015, <http://tinyurl.com/patwfyp>.)

CHINA'S YUAN ON TRACK FOR INCLUSION IN IMF'S BASKET

China's currency, the yuan, seems to be on track to be included in the International Monetary Fund's (IMF's) benchmark currency basket, putting it on par with the US dollar, euro and pound sterling.

A draft report by IMF staff who have been assessing the yuan's technical criteria seems to be favourable.

A positive review by IMF staff will lower the hurdle for board approval, as a 70 per cent voting majority is needed rather than the 85 per cent which is normally set for tough decisions. The IMF's executive board is currently reviewing the Special Drawing Right (SDR), an international reserve comprising the major currencies: the euro, Japanese yen, pound sterling and US dollar.

The SDR composition is reviewed every five years. There have been suggestions that China's central bank has been aggressively trying to ensure that the yuan makes it to the basket in the current review.

Joining the SDR could not only boost the yuan's international recognition and the use of the currency globally, but it is also expected to lift China's financial power. In addition, the move is seen as a step towards Beijing's long-term goal of reducing its dependence on the dollar and placing itself as a serious economic power in the international arena.

France and the UK have backed the move, and Germany and Italy are among several who have said they are open to the move, depending on whether the yuan meets the technical criteria. The US is believed to have given conditional support for the yuan to join the SDR.

(Source: *IBTimes*, 27 October 2015,

<http://tinyurl.com/pkamjn2>.)

ICELAND JAILED BANKERS AND REJECTED AUSTERITY-AND IT'S BEEN A SUCCESS!

When the global economic crisis hit in 2008, Iceland suffered terribly—more than most other countries. The savings of 50,000 people were wiped out, plunging Icelanders into debt and placing 25 per cent of homeowners into mortgage default.

Now, less than a decade later, the nation's economy is booming. This year it will become the first culturally European country that faced collapse to beat its pre-crisis peak of economic output. That's because it took a different approach.

Instead of imposing devastating austerity measures and bailing out its banks, Iceland let its banks go bust and focused on social welfare policies. In March, the IMF announced that the country had achieved economic recovery "without compromising its welfare model" of universal health care and education.

Iceland allowed those responsible for the crisis—its bankers—to be prosecuted as criminals. This is in sharp contrast to the USA and elsewhere in Europe, where CEOs escaped punishment.

By refusing to allow its currency, the krona, to suffer ultra-low inflation to protect the assets of the rich—as in the rest of the West— Iceland let the krona tumble. The resulting inflation and higher prices have helped its export industries, unlike what happened in many European Union countries which are contending with ongoing deflation.

In early June, Iceland's Minister of Finance and Economic Affairs, Bjarni Benediktsson, announced the introduction of a 39 per cent tax on creditors seeking to reclaim assets from the country's failed banks. As the *Guardian* explains, this is "an attempt to prevent foreign investors rushing en masse to withdraw billions currently frozen in Iceland's financial system". This move and other actions have, unsurprisingly, drawn the ire of other countries—in ideological and measurable ways.

By refusing to honour bank guarantees given by British and Dutch investors in Icesave—a subsidiary of one of Iceland's main banks, Landsbanki—Iceland created enemies of its European neighbours. But it has now repaid 85 per cent of UK claims, and Iceland's finance minister announced recently that all will be settled by the end of the year.

When asked why Iceland was enjoying such a strong recovery while everyone else is still mired in debt, President Olafur Ragnar Grfmsson said in 2013:

"Why are the banks considered to be the holy churches of the modern economy? Why are private banks not like airlines and telecommunication companies and allowed to go bankrupt if they have been run in an irresponsible way? The theory that you have to bail out banks is a theory that you allow bankers enjoy for their own profit their success, and then let ordinary people bear their failure through taxes and austerity. People in enlightened democracies are not going to accept that in the long run. (Source: TruthDig.com, 11 June 2015, <http://tinyurl.com/qfvpf77>.)

DIFFERENT BRAIN REGIONS INFECTED WITH FUNGI IN ALZHEIMER'S DISEASE

The possibility that Alzheimer's disease (AD) has a microbial aetiology has been proposed by several researchers. Now, Spanish scientists have provided evidence that tissue from the central nervous system (CNS) of deceased AD patients contains fungal cells and hyphae. Different brain regions including the external frontal cortex, cerebellar hemisphere, entorhinal cortex/hippocampus and choroid plexus contain fungal material which is absent in brain tissue from controls.

Analysis of brain sections from 10 additional AD patients revealed that all are infected with fungi. Fungal infection was also observed in blood vessels, which may explain the vascular pathology frequently detected in AD patients. Sequencing of fungal DNA extracted from frozen CNS samples identified several fungal species.

The possibility that AD is a fungal disease, or that fungal infection is a risk factor for the disease, opens new perspectives for effective therapy for Alzheimer's sufferers.

(Source: Nature.com, 15 October 2015, <http://www.nature.com/articles/srep15015>.)

90 PER CENT OF PEOPLE KILLED IN DRONE STRIKES ARE INNOCENT CIVILIANS

An anonymous whistleblower within the US intelligence community has provided a cache of classified intelligence documents to The Intercept, which reveal the dysfunctional nature of the American drone warfare/targeted assassination program.

The stunning array of classified information reveals an extreme lack of precision in the drone assassination campaign, with one document reporting that "nearly 90 percent of people killed in airstrikes were not the intended targets" over one five-month period.

While the Obama administration has consistently stated that the drone program is operated as a precision program carried out with strict oversight and regulation, evidence reveals that this is false.

"It's stunning the number of instances when selectors are misattributed to certain people. And it isn't until several months or years later that you all of a sudden realize that the entire time you thought you were going after this really hot target, you wind up realizing it was his mother's phone the whole time," the intelligence whistleblower told The Intercept.

"This outrageous explosion of watchlisting—of monitoring people and racking and stacking them on lists, assigning them numbers, assigning them baseball cards, assigning them death sentences without notice, on a worldwide battlefield—it was, from the very first instance, wrong."

The source claims that gathering digital data from cellphones and emails is the primary tool used by the military to find, fix and finish its targets, and says that relying on such tactics "require[s] an enormous amount of faith in the technology that you're using".



The report makes it clear that bad intelligence has resulted in many innocent people, including US civilians, being killed in drone attacks.

The documents reveal that the US government has intentionally labelled people killed in drone strikes as "enemy combatants", even though they were in no way intended to be the target of the strike and had no relation to the operation. The actions by the government are intended to mask the actual extent of civilians being killed by the US drone program.

(Source: *TheFreeThoughtProject.com*, 15 October 2015, <http://tinyurl.com/p3twde5>; "The Drone Papers", October 2015, *TheIntercept.com/drone-papers*)

DESPITE WHINING BY MONSANTO, ROUNDUP DOES CAUSE CANCER-AND MANY OTHER DISEASES

The World Health Organization (WHO) is right when it announced recently that Roundup® weedkiller, also known as "glyphosate", probably causes cancer. In response, Monsanto has been whining that the WHO is wrong.

However, according to Professor Dave Schubert, head of the Cellular Neurobiology Laboratory at the Salk Institute for Biological Studies, USA: "There are a number of independent, published manuscripts that clearly indicate that glyphosate...can promote cancer and tumor growth. It should be banned." (The Salk Institute is one of the world's top biomedicine research institutes, and in 2009 it was ranked number one globally by ScienceWatch in the neuroscience and behaviour areas.)

Roundup has been linked with numerous diseases including autism, dementia, thyroid and bladder cancer, kidney failure, bowel and intestinal disease, high blood pressure, obesity and diabetes. It has been found in 75 per cent of air and water tested, and in virtually all sanitary cotton products. Crops are drenched in Roundup right before harvest, meaning that we get a lot of it in our food.

And yet the US Environmental Protection Agency (EPA) recently raised the allowable amount of glyphosate—the main ingredient in Monsanto's toxic Roundup—by 3,000 per cent, pretending that it won't have adverse health effects.

The EPA uses Monsanto's own biased research—largely based on outdated studies from the 1970s—to pretend that Roundup is safe. (Monsanto studies from the 1970s and 1980s—shared with the EPA at the time—allegedly showed that Roundup is toxic.)

(Source: *WashingtonsBlog.com*, 7 November 2015, <http://tinyurl.com/plxk3wk>.)

AMNESTY INTERNATIONAL: AUSTRALIA SMUGGLES PEOPLE

More evidence has come to light regarding an incident in May when 65 asylum seekers and the crew of a boat on its way from Indonesia to New Zealand were intercepted in either Indonesian or international waters by Australian authorities and escorted into Australian waters.

Fifty were transferred under false pretences and detained in cells on an Australian Border Force vessel for almost a week. Crew and asylum seekers were forced onto two smaller boats less well-equipped than their original vessel and escorted to international waters.

Amnesty International said that the crew was given maps by the officials showing them where to land in Indonesia. They were provided little fuel, and subsequently one of the boats ran out of fuel at sea. "The terrified passengers were forced to do a dangerous mid-sea transfer onto the remaining boat and were eventually rescued by Indonesian locals after hitting a reef."

In August, Amnesty interviewed the six crew members in Indonesia where they remain in police custody. The crew asserts that Australian officials gave them a total of US\$32,000 in \$100 notes to head back to Indonesia. This account was backed up by one of the passengers, and Indonesian officials have also confirmed that this was the amount seized from the crew on arrival.

"Australia has, for months, denied that it paid for people smuggling, but our report provides detailed evidence pointing to a very different set of events," said Anna Shea, Refugee Researcher at Amnesty International.

In June, the then Australian Prime Minister Tony Abbott stated that border protection officials had been "incredibly creative" in coming up with strategies.

(Source: *Alternative News Project*, 29 October 2015, <http://tinyurl.com/pprr476>.)

UK GOVERNMENT INQUIRY ACCIDENTALLY DELETED DATABASE OF EVIDENCE ON PAEDOPHILE RINGS

An inquiry which was intended to investigate why paedophile rings seem to be exempt from capture has had its entire database permanently and completely deleted. The Independent Inquiry into Child Sexual Abuse (IICSA) issued a formal apology after vital testimony from victims of child sexual abuse was "instantly and permanently deleted" from its servers.

The Inquiry said that the loss of data was due to a technical malfunction, which dumped an untold number of testimonies that were submitted to its official website. It now claims that there was no security breach and that, while the testimonies were lost, the privacy of the victims is not at risk.

The IICSA, which was established by the British Home Secretary, Theresa May, on 7 July 2014, posted the following statement on its website on 15 October:

"Due to a change in our website address to <http://www.iicsa.org.uk> on 14 September, any information submitted to the Inquiry between 14 September and 2 October through the online form on the 'Share your experience' page of our website, was instantly and permanently deleted before it reached our engagement team.

"We are very sorry for any inconvenience or distress this will cause and would like to reassure you that no information was put at risk of disclosure or unauthorised access. Due to the security measures on our website, your information cannot be found or viewed by anyone else as it was immediately and permanently destroyed.

"We would like to apologise again to anyone who submitted details to the Inquiry during this time and to ask you to please resubmit your information through the online form. Alternatively you can call the Inquiry helpline on 0800 917 1000 to submit your information over the phone, or email our team at contact@iicsa.org.uk."

The Inquiry is being run by The Hon. Lowell Goddard, DNZM, QC, a New Zealand judge who will receive a pay package of nearly half a million pounds for her work with the group. (Source: *The Telegraph, UK*, 16 October 2015, <http://tinyurl.com/o2kjk7d>; *TheFreeThoughtProject.com*, 19 October 2015, <http://tinyurl.com/ovv3gyv>.)

BOMBHELL MEMOS REVEAL BLAIR AND BUSH HAD "DEAL IN BLOOD" A YEAR BEFORE IRAQ INVASION

A bombshell White House memo has revealed for the first time details of the "deal in blood" forged by the UK's Tony Blair and the USA's George W. Bush over the Iraq War.

The sensational leak shows that Blair had given an unqualified pledge to sign up to the conflict a year before the invasion started.

It flies in the face of the British Prime Minister's public claims at the time, that he was seeking a diplomatic solution to the crisis. He told voters: "We re not proposing military action." This is in direct contrast to what the secret email now reveals.

The damning memo, from US Secretary of State Colin Powell to President George W. Bush, was written on 28 March 2002, a week before Bush's famous summit with Blair at his Crawford ranch in Texas.

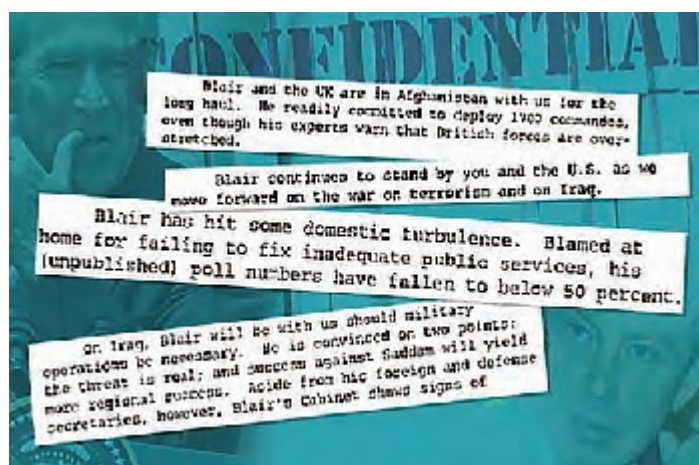
In the memo, Powell tells Bush that Blair "will be with us" on military action. Powell assures the President: "The UK will follow our lead..."

A second explosive memo from the same cache reveals how Bush used "spies" in the Labour Party to help him manipulate British public opinion in favour of the war.

The documents, obtained by the *Mail on Sunday*, are part of a batch of secret emails held on the private server of Democratic presidential candidate Hillary Clinton which US courts have forced her to reveal.

Former Tory Shadow Home Secretary David Davis said: "The memos prove in explicit terms what many of us have believed all along: Tony Blair effectively agreed to act as a frontman for American foreign policy in advance of any decision by the House of Commons or the British Cabinet.

"He was happy to launder George Bush's policy on Iraq and subcontract British foreign policy to another country without having the remotest ability to have any real influence over it. And in return for what? For George Bush pretending Blair was a player on the world stage to impress voters in the UK when the Americans didn't even believe it themselves."



Davis was backed by a senior diplomat, with close knowledge of Blair-Bush relations, who said: "This memo shows beyond doubt for the first time Blair was committed to the Iraq War before he even set foot in Crawford.

"And it shows how the Americans planned to make Blair look an equal partner in the special relationship to bolster his position in the UK."

The Powell document, headed "SECRET/NOFORN ...Memorandum for the President", lifts the lid on how Blair and Bush secretly plotted the war behind closed doors at Crawford.

Powell says to Bush: "He will present to you the strategic, tactical and public affairs lines that he believes will strengthen global support for our common cause," adding that Blair has the presentational skills to "make a credible public case on current Iraqi threats to international peace".

Five months after the summit, Downing Street produced the notorious "45 minutes from doom" dossier on Saddam Hussein's supposed "weapons of mass destruction". After Saddam was toppled, the dossier's claims were exposed as bogus.

Nowhere in the Powell memo is a diplomatic route suggested as the preferred option.

Instead, Powell says that Blair will also advise on how to "handle calls" for the "blessing" of the United Nations Security Council, and to "demonstrate that we have thought through the day after"—in other words, made adequate provision for a post-Saddam Iraq.

Critics of the war say that the lack of post-conflict planning has contributed to the loss of more than 100,000 lives since the invasion— and a power vacuum which has contributed to the rise of Islamic State terrorism.

Significantly, Powell warns Bush that Blair has hit "domestic turbulence" for being "too pro-U.S. in foreign and security policy, too arrogant and 'presidential'", which Powell points out is "not a compliment in the British context". (Source: *DailyMail.co.uk*, 17 October 2015, <http://tinyurl.com/oxbp5hn>.)

CANCERS RISING IN JAPAN SINCE FUKUSHIMA DISASTER

A shocking new report, "Cancer on the Rise in Post-Fukushima Japan", from Fairewinds Energy Education (FEE), reveals that the ongoing multi-core nuclear meltdown at the Fukushima Daiichi plant that started in March 2011 has produced approximately 230 times higher than normal thyroid cancers in Fukushima Prefecture and could result in as many as one million more cancers in Japan's future as a result of the meltdown.

According to FEE, data provided by a group of esteemed Japanese medical professionals as well as the Tokyo Electric Power Corporation (TEPCO) confirm a direct link between the triple meltdown and numerous cancers in Japan.

The 2014 medical professionals' report, "Airborne Plutonium and Non-Natural Uranium from the Fukushima DNPP Found at 120 km Distance a Few Days after Reactor Hydrogen Explosions", reveals that the incidence of thyroid cancer is approximately 230 times higher than normal in the Fukushima Prefecture.

FEE states that TEPCO's press release confirms the leukaemia diagnosis for a TEPCO worker due to his ongoing exposure during the last four years to radiation from the Fukushima triple meltdown. Sadly, during the early months of the emergency, most TEPCO workers did not wear the required dosimeters needed to measure each employee's exposure to radiation, which has made accurate assessment of the radiation doses received by TEPCO employees impossible.

As transcribed by EneNews.com, Arnie Gundersen, Chief Engineer at Fairewinds, stated on 4 November: "It's been almost five years from the Fukushima Daiichi meltdowns, and the news from Japan is still not good... I believe, as do many of my colleagues, that there will be at least 100,000 and as many as one million more cancers in Japan's future as a result of this meltdown. So what's the bottom line? The cancers already occurring in Japan are just the tip of the iceberg. I'm sorry to say that the worst is yet to come."

The content of the FEE report defies what are chronically underestimated radiation exposure levels and effects produced by the International Atomic Energy Agency, TEPCO and the Japanese government.

The present-day radiation risk model is based on outdated science and a dataset extracted from Hiroshima atomic bomb survivors, and was arrived at before the discovery of DNA and knowledge of up to six orders of magnitude higher genotoxicity caused by what is known as "photoelectron induction" associated with low-dose radioisotope exposure—that is, the incorporation into our tissues of extremely low doses of radionuclides such as plutonium-239, uranium-238 and over 100 others produced as byproducts of the nuclear reactions that produce nuclear power.



A study published in December 2011 in the *Journal of Environmental Radioactivity* confirms that the radioactive fallout from the Fukushima nuclear disaster reached Lithuania and included plutonium, the most deadly man-made element (nanogram for nanogram) in existence. According to the authors, the radio-isotope concentrations measured indicate that there was "long-range air mass transport" from Japan across the Pacific to North America and then across the Atlantic to Central Europe "as indicated by modelling".

What this means is that every region under the jet stream, which includes half of the planet north of the equator, could have been exposed to some degree of plutonium fallout. This fact is all the more disturbing when we consider that there is no such thing as a safe level, and that the harm (on the human time-scale) does not dissipate: the half-life of plutonium-239 is 24,200 years and that of uranium-238 is 4,460,000,000 years, which is older than our planet.

Clearly, with anthropogenic radioisotopes like plutonium-239 having the potential of causing harm to biological systems for hundreds of thousands of years, the health implications of this and other meltdowns are profound.

(Source: Sayer Ji, *GreenMedInfo.com*, 8 November 2015, <http://tinyurl.com/pofgbhd>)

Project Censored's Top 25 News Stories

Continuing an initiative that dates back to 1976, the Project Censored team has selected and judged the most important American and international news stories of 2014-2015 that were underreported or ignored by the US corporate media.

Compiled by
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1. Half of Global Wealth Owned by the One Per Cent

In January 2015, Oxfam, an international non-profit organisation that aims to eliminate poverty, published a report stating that one per cent of the global population will own more wealth than the rest of the 99 per cent combined by 2016.

The Oxfam report provided evidence that extreme inequality is not inevitable but is the result of political choices and economic policies established and maintained by the power elite—wealthy individuals whose strong influence keeps the status quo rigged in their own favour.

In addition to reporting the latest figures on global economic inequality and its consequences, the Oxfam study outlined a nine-point plan that governments could adopt in creating new policies to address poverty and economic inequality.

According to the report, the proportion of global wealth owned by the one per cent has increased from 44 per cent in 2009 to 48 per cent in 2014 and is projected to reach 50 per cent in 2016.

An October 2014 Oxfam report, "Even It Up: Time to End Extreme Inequality", revealed that the number of billionaires worldwide had more than doubled since the 2009 financial crisis, showing that, although those at the top have recovered quickly, the vast majority of the world's population are far from reaping the benefits of any recent economic recovery.

Even more staggering, the world's richest 85 people now hold the same amount of wealth as half the world's poorest population.

"Failure to tackle inequality will leave hundreds of millions trapped in poverty unnecessarily," the report's authors warned.

Through its reports and the "Even It Up" campaign, Oxfam described how to address economic inequality, identifying nine specific actions:

1. Make governments work for citizens and tackle extreme inequality.
2. Promote women's economic equality and women's rights.
3. Pay workers a living wage and close the gap created by skyrocketing executive rewards.
4. Share the tax burden fairly to level the playing field.
5. Close international tax loopholes and fill holes in tax governance.
6. Achieve universal free public services by 2020.
7. Change the global system for research and development and pricing of medicines so everyone has access to appropriate and affordable medicines.
8. Implement a universal social protection floor.
9. Target development finance at reducing inequality and poverty, and strengthening the compact between citizens and their government.

Oxfam, in its "Even It Up" report, calculated that a "1.5 percent tax on billionaires' wealth over \$1bn in 2014 would raise \$74bn", which would be "enough to fill the annual gaps in funding needed to get every child into school and deliver health services in the poorest 49 countries".

2. Oil Industry Illegally Dumps Fracking Wastewater

California state documents obtained by the Center for Biological Diversity in October 2014 revealed that the oil industry had illegally dumped almost three billion gallons of wastewater from fracking (hydraulic fracturing to extract oil and gas) into central California aquifers.

According to the Center for Biological Diversity report, the leaking occurred through at least nine injection disposal wells used by the oil industry to dispose of contaminated waste.

The affected aquifers supply water for human consumption and for irrigation of crops for human consumption. The documents also revealed that water supply wells located close to wastewater injection sites were tested and found to have high levels of arsenic, thallium and nitrates, all toxic chemicals linked to the oil industry's wastewater.

In June 2015, the Environmental Protection Agency (EPA) released its study of the impacts of fracking on drinking water supplies.

Although the EPA's assessment identified "important vulnerabilities to drinking water resources", it concluded that "hydraulic fracturing activities.. have not led to widespread, systemic impacts on drinking water resources".

In response, Food & Water Watch issued a press release by executive director Wenonah Hauter, who wrote: "Sadly, the EPA study.. falls far short of the level of scrutiny and government oversight needed to protect the health and safety of the millions of American people affected by drilling and fracking for oil and gas."

Noting that the oil and gas industry refused to cooperate with the EPA on a single "prospective case study" of fracking's impacts, Hauter concluded: "This reveals the undue influence the industry has over the government and shows that the industry is afraid to allow careful monitoring of their operations."



An aerial view of pits containing production water from oil wells near California 33 and Lokern Road in Kern County. (Source: eroHedge.com)

3. Eighty-Nine Per Cent of Pakistani Drone Victims Not Identifiable as Militants

Since President Barack Obama's inauguration in 2009, an estimated 2,464 people have been killed by drone strikes targeted outside of the United States' declared war zones.

This figure was posted in February 2015 by Jack Serle and the team at The Bureau of Investigative Journalism, who maintain a database of all known strikes—based on fieldwork, media reports and leaked documents—which provides a clearer picture of the scale and impact of the US drone program than the episodic reporting provided by corporate media.

According to Bureau data, al-Qaeda members comprise only four per cent of the total 2,379 people killed by US drone strikes in Pakistan as of October 2014, just over 10 years after the first such strikes. Of the total killed, about 30 per cent could be identified and 11 per cent were defined as militants.

Little is known about the remaining 1,675 unnamed victims. The Bureau of Investigative Journalism reported these numbers after conducting a year-long investigation that compiled information from various sources to provide an overview of drone strike casualties.

US drone missions are flown mainly over Pakistan, where the CIA aims to weaken al-Qaeda and limit its movement into neighbouring Afghanistan.

The use of unmanned drones is seen as a way to minimise involvement and resentment in a country that is characterised by the *New Yorker* as "unstable" and that is known to possess over 100 nuclear weapons. While the unofficial drone war for control over the Pakistan-Afghanistan border ended in mid-2013, the drone campaign continued with five strikes recorded in January 2015, the most since July 2014.

In January, additional strikes were reported to have killed at least 45 in Somalia and three in Yemen, where a 12-year-old child was among the casualties.

The Bureau of Investigative Journalism's findings undermine the validity of US Secretary of State John Kerry's claim that "the only people we fire a drone at are confirmed terrorist targets at the highest level".

Regardless of whether or not those killed were in fact dangerous, the inability to account for their identities invites scepticism towards US military operations and raises moral concerns about basic respect for human dignity.

In April 2015, Jeremy Scahill reported that a US military base in Ramstein, Germany, is the "the high-tech heart of America's drone program". Top-secret US documents obtained by *The Intercept*, Scahill reported, provide "the most detailed blueprint seen to date of the technical architecture used to conduct strikes with Predator and Reaper drones". Most drone pilots operate in the US, but depend on Ramstein to control their aircraft.

4. Popular Resistance to Corporate Water Grabbing

In January 2000, the people of Cochabamba, Bolivia, shut down the city in protest against the privatisation of their municipal water system which had resulted in rate hikes that doubled or tripled their water bills.

In February of that year, Pacific News Service correspondent Jim Shultz broke the story in the Western press with "A War Over Water", his first-hand reports of clashes between riot police and protesters.

On the 15th anniversary of the Cochabamba protests, popular resistance to corporate water control continues to expand around the world, encompassing remunicipalisation of privatised water utilities, direct action against unjust water shutoffs, and rainwater harvesting. A common theme—access to water as a fundamental human right—unites these three issues.

As Ellen Brown reported, today's "water wars" not only pit local farmers against ranchers or urbanites, but also involve new corporate "water barons" including Goldman Sachs, JPMorgan Chase, Citigroup, The Carlyle Group and other investment firms that are purchasing water rights from around the world at an unprecedented pace.

A 2014 report on water grabbing defined it in these terms: watergrabbing refers to situations where powerful actors are able to take control of or reallocate to their own benefit water resources at the expense of previous (un)registered local users or the ecosystems on which those users' livelihoods are based.

It involves the capturing of the decision-making power around water, including the power to decide how and for what purposes water resources are used now and in the future.

The authors of this report identified five "interlinked" drivers of the current "new wave of water grabbing":

- Changing patterns in global food markets have triggered a renewed interest in acquiring land and water resources for agricultural production.
- Rising oil prices and concerns that a "peak oil" period has been reached have led to the rise of agrifuels that use large amounts of water throughout the production cycle.
- Growing global demand for raw materials underpins the continued expansion of the extractive industries and large-scale mining projects—including, in particular, hydraulic fracturing or "fracking".
- The market-based management of water resources, especially the privatisation of water systems and services, which jeopardises water access for poor and marginalised groups in many developing countries.
- The financialisation of water utilities, infrastructures and the resource itself.

Corporate efforts to privatise water rights are meeting robust grassroots resistance as communities around the world assert their rights to decide how water resources are used.

Over the past 15 years, as Victoria Collier reported for CounterPunch, there have been 180 cases across 35 countries of water "remunicipalization", with water control returned from private ownership to the public. "From Spain to Buenos Aires, Cochabamba to Kazakhstan, Berlin to Malaysia, water privatization is being aggressively rejected," she reported.

In opposition to the fast-growing private-public partnership (PPP) model, which Collier described as a marketing euphemism for privatization", communities in Japan, the Netherlands, India, Costa Rica, Brazil and other countries are now pursuing public-public partnerships (PUPs) to forestall corporate water takeovers and to develop "non-

profit, public-driven solutions for water infrastructure needs".

5. Fukushima Nuclear Disaster Deepens

The 2011 nuclear reactor meltdown in Fukushima, Japan, continues unresolved, despite both assurances by government authorities and major news media that the situation has been contained and the assessment of the United Nations International Atomic Energy Agency that Japan has made "significant progress" in cleaning up the site.

The continued dumping of extremely radioactive cooling water into the Pacific Ocean from the destroyed nuclear plant, with radiation already being detected along the Japanese coastline, has the potential to have an impact on entire portions of the Pacific Ocean and North America's western shoreline.

While acknowledging that the water in remaining tanks at the Fukushima facility is heavily "tainted", the Japanese government's Nuclear Regulation Authority affirmed in a December 2014 statement a decision to dump it into the Pacific.

Aside from the potential release of plutonium into the Pacific Ocean, Tokyo Electric Power Company (TEPCO) admitted that the facility is releasing a whopping 150 billion becquerels of tritium and seven billion becquerels of caesium- and strontium-contaminated water into the ocean every day.

By contrast, the Japanese government does not allow over 100 becquerels per kilogram to be sold to its citizenry. "This water contains plutonium 239 and its release into the Ocean has both local as well as global repercussions," wrote Michel Chossudovsky of Global Research.

In August 2014, TEPCO acknowledged that nearly every fuel rod at Reactor 3 in the No. 1 plant had melted as a result of the earthquake and tsunami, Sarah Lazare reported, drawing on Japanese press sources.

Previously, TEPCO had estimated that only 63 per cent of the reactor's nuclear fuel had melted. The TEPCO statement also noted that the fuel began melting six hours earlier than previously believed. Both factors, Lazare wrote, would make the extraction and disposal of melted fuel more difficult.

More than four years since the tsunami and earthquake devastated Fukushima, corporate media do not treat the ongoing disaster itself as significantly newsworthy. Instead, most developing corporate coverage focuses on whether other countries, including the USA, are adequately prepared if a similar type of nuclear disaster were to occur elsewhere.

Certainly this is an important consideration, but the plight of the Japanese people displaced by the disaster, not to mention the long-term, potentially global environmental consequences, remains dramatically underreported in the corporate press.

In May 2015, the Japanese Nuclear Regulation Authority gave final clearance to the Sendai Nuclear Power Plant, which is owned and operated by the Kyushu Electric Power Company, to restart operations. It is the nation's first nuclear power plant to resume operations, under new government regulations, since the 2011 Fukushima disaster.

Russia Today reported: "Despite objections from almost two thirds of the public, [Japanese Prime Minister Shinzo] Abe wants nuclear plants to supply about 20-22 percent of Japan's energy needs by 2030."

6. Methane and Arctic Warming's Global Impacts

In recent years, atmospheric methane levels have reached an all-time high. A greenhouse gas that is a leading contributor to global warming, methane is far more destructive than carbon dioxide.

In his report for Truthout, Dahr Jamail quoted Paul Beckwith, a part-time professor of climatology and meteorology at the University of Ottawa: "...our climate system is in early stages of abrupt climate change that, unchecked, will lead to a temperature rise of 5 to 6 degrees Celsius within a decade or two." Such changes would have "unprecedented effects" for life on Earth.

The melting of Arctic ice releases previously trapped methane into the atmosphere. "What happens in the Arctic," Beckwith observed, "does not stay in the Arctic."

The loss of Arctic ice affects the Earth as a whole. For example, as the temperature difference between the Arctic and the equator decreases, the jet stream increases. This in turn speeds the melting of Arctic ice.

Dr Leonid Yurganov, a senior research scientist at the University of Maryland and the Joint Center for Earth Systems

Technology, stated: "Increased methane would influence air temperature near the surface. This would accelerate the Arctic warming and change the climate everywhere in the world."

The East Siberian Arctic Shelf (ESAS) is one area of particular concern. Some two million square kilometres in size, the ESAS releases 17 million tons of methane into the atmosphere each year, according to a recent study.

Dr Natalia Shakhova, a research associate professor with the University of Alaska Fairbanks International Arctic Research Center, reported that ESAS emissions "are prone to be non-gradual (massive, abrupt)".

A 2013 study, published in *Nature*, reported that a 50-gigaton "burp" of methane is "highly possible at any time".

7. Fear of Government Spying is "Chilling" Writers' Freedom of Expression

Mass surveillance has "badly shaken writers' faith that democratic governments will respect their rights to privacy and freedom of expression", according to a January 2015 PEN America report based on the responses of 772 writers from 50 countries.

Reporting for Common Dreams, Lauren McCauley covered not only the PEN America report, but also a July 2014 report by the American Civil Liberties Union and Human Rights Watch indicating that US journalists and lawyers increasingly avoid work on potentially controversial topics due to fear of government spying.

8. Who Dies at the Hands of US Police—and How Often

Compared with other capitalist countries, the United States is unquestionably different when it comes to the level of state violence directed against minorities, Richard Becker reported in January 2015 for *Liberation*.

Using 2011 figures, Becker wrote that, on a per capita basis, "the rate of killing by U.S. police was about 100 times that of English cops in 2011". Similarly, US police were "40 times as likely to kill as German police officers", and "20 times as likely to kill as their Canadian counterparts".

This, Becker noted, is probably not the kind of "American exceptionalism" that President Obama had in mind when he addressed graduating West Point cadets in May 2014.

It is not clear how many people that police in the US kill each year, since there is no federal agency that accurately keeps track of such information. The FBI compiles annual statistics for "justified homicides" by police, and all reported police killings are registered as "justified" killings by the FBI.

Participation in reporting homicides to the FBI by police and sheriff's departments is voluntary, but only about 800 police agencies—out of 18,000—provide statistics.

According to FBI statistics, there were 461 "justified homicides" by police in 2013, but the website KilledByPolice.net reported that "U.S. non-military police killed 748 people in just the last eight months of 2013, and 1,100 in 2014".

The Killed By Police figures were compiled using establishment media sources; but because not every police killing is reported, and checking all news sources across the country is virtually impossible, these figures likely underestimate the number of police killings of civilians.

In England, which Becker characterised as "also a capitalist country with a long history of racism", police do not carry guns on patrol.

Official records indicate that police in England fired guns only three times while on duty in 2013, with "zero reported fatalities".

In recent months [late 2014], there has been an outpouring of opposition to police murder in the United States. Hundreds of thousands have taken to the streets in hundreds of cities, towns and campuses.

"As in all other progressive struggles throughout history," Becker wrote, "it is the movement of the people in the streets, schools and workplaces that is the key to real change."

In June 2015, a team of reporters at the *Guardian* filed a major new report on police killings in the US.

Summarising findings from the study, Jon Swaine, Oliver Laughland and Jamiles Lartey reported that 102 unarmed people were killed by US police through the first five months of 2015, and that "agencies are killing people at twice the rate calculated by the US government".

Furthermore, they wrote: "Black Americans are more than twice as likely to be unarmed when killed during encounters with police as white people."

Based on analysis of public records, local news reports and the *Guardian's* own reporting, they noted that "32% of black people killed by police in 2015 were unarmed, as were 25% of Hispanic and Latino people, compared with 15% of white people killed".

Over the five-month period covered in the study, *Guardian* researchers identified 27 people killed by police use of Tasers. All but one of these victims were unarmed.

The study also documented 14 officer-involved deaths following altercations in custody, including that of Freddie Gray, whose death from a broken neck sustained in a Baltimore police van led to public protests and the indictment of six city police officers.

9. Millions in Poverty Get Less Media Coverage Than Billionaires Do

In June 2014, Fairness and Accuracy in Reporting published a study showing that ABC *World News*, CBS *Evening News* and NBC *Nightly News* give more media coverage to the 482 billionaires in the US than to the 50 million people in poverty, airing almost four times as many stories that included the term "billionaire" as stories including terms such as "homeless" or "welfare".

"The notion that the wealthiest nation on Earth has one in every six of its citizens living at or below the poverty threshold reflects not a lack of resources, but a lack of policy focus and attention—and this is due to a lack of public awareness to the issue," Frederick Reese of MintPress News wrote.

10. Costa Rica Setting the Standard on Renewable Energy

For 75 days straight during the first months of 2015, the nation of Costa Rica did not burn any fossil fuels to generate electricity.

Instead, as a result of heavy rainfall, hydropower plants generated almost all of the country's electricity. The country's geothermal, wind and solar energy sources made reliance on coal and petroleum sources unnecessary.

11. Pesticide Manufacturers Spend Millions on PR Response to Declining Bee Populations

A May 2014 study from Harvard's School of Public Health showed that two widely used neonicotinoids appear to cause significant harm to honeybee colonies.

In April 2015, *Science* magazine published two additional studies, whose findings corroborate and extend those of the Harvard study.

Neonicotinoids are used as seed treatments in more than 140 crops. They are systemic pesticides, meaning they are absorbed through roots and leaves and distributed throughout an entire plant, including its pollen and nectar.

For pollinators, low-level exposure can lead to sublethal effects such as altered learning, impaired foraging and immune suppression; at higher levels, exposure can be deadly.

In response to scientific evidence like this, three of the leading corporations that produce neonicotinoid pesticides—Bayer, Syngenta and Monsanto—have engaged in massive public relations campaigns, costing more than US\$100 million and employing tactics similar to those that Big Tobacco used for decades to deny public health findings.

As Michele Simon reported in a study for Friends of the Earth, these tactics include creating distractions by blaming anything but the pesticides for documented collapses in honeybee populations—including, for example, blaming farmers for misuse of the pesticides. These companies also attack scientists and journalists to discredit their findings.

At the same time, Bayer, Syngenta and Monsanto attempt to buy credibility by cultivating alliances and strategic partnerships with farmers, beekeepers and agricultural organisations by representing themselves as "Friends of the Bees".

Thus, for example, Monsanto announced the formation of a Honey Bee Advisory Council, a strategic alliance of Monsanto executives and others. The British Beekeepers Association received significant funding from Bayer, Syngenta and other pesticide companies; in return, it endorsed the insecticides as "bee-friendly".

12. Seeds of Doubt: USDA Ignores Popular Critiques of New Pesticide-Resistant Genetically Modified Crops

Despite nearly 400,000 petition signatures from citizens, health professionals and farmers expressing public opposition, in September 2014 the US Department of Agriculture (USDA) approved a new generation of genetically engineered corn and soybeans created by the biotech company Dow AgroSciences.

The new Enlist™ brand seeds will tolerate a new weedkiller also engineered by Dow, called Enlist Duo™, which combines for the first time two common herbicides: 2,4-Dichlorophenoxyacetic acid, a component of the toxic Agent Orange herbicide used during the Vietnam War, and glyphosate, the key element in Monsanto's Roundup® herbicide.

Since some weeds have developed resistance to either 2,4-D or glyphosate, Dow aimed to combine the two into a single, more effective herbicide in Enlist Duo.

The USDA approved the new Enlist Duo-resistant seeds, even though it acknowledged that this approval "could increase use of 2,4-D by as much as 600 percent and possibly affect nearby crops such as tomatoes and grapes not engineered to resist the chemical" according to Anastasia Pantisios's reporting.

Her report continued: "As farmers have been encouraged to devote more and more acres to single crops (aka 'monocropping') and use huge doses of glyphosate-based herbicides to deal with weeds, so-called 'superweeds' have cropped up that are resistant to the herbicides. But many farmers and food safety advocates fear that increased applications of more powerful herbicides will only cause more resistant weeds to appear."

The herbicide 2,4-D not only threatens crop integrity, but is also associated with public safety risks including various forms of cancer, Parkinson's disease, hormone disruption and birth defects.

Spokespersons for numerous organisations, including the Center for Food Safety and the Organic Consumers Association, condemned the USDA decision. Pantisios reported that Wenonah Hauter, executive director of Food & Water Watch, said that "the USDA ignored public opposition and its responsibility to protect public health and agriculture".

Hauter called the approval of 2,4-D-ready crops "one of the most negligent decisions that the USDA has made in the nearly twenty years since genetically engineered crops have been on the market".

As Mary Ellen Kustin and Soren Rundquist reported, research shows that almost 500 elementary schools are located within 200 feet [~61 metres] of soybean and corn fields.

"This finding is alarming," they wrote, "because young children are especially vulnerable to the toxic herbicide 2,4-D in Dow AgroSciences' Enlist Duo™..." Kustin and Rundquist noted that although "Dow claims that Enlist Duo would not drift more than 202 feet [61.6 metres] if applied properly", the EPA's own risk assessment found that "other formulations of 2,4-D have drifted more than 1,000 feet [~305 metres]".

They concluded: "The EPA needs to pay considerably more attention to the additional exposure risks borne by young children who live or study near corn and soybean fields than it did in its risk assessment."



The revolving door between Monsanto and the US government. (Source: The Cornucopia Institute, <http://tinyurl.com/mamce5b>)

13. Pentagon and NATO Encircle Russia and China

In service of corporate capital and with vested interests in the regions' natural resources, the Pentagon and the North Atlantic Treaty Organization (NATO) have been encircling Russia and China with military bases and missile defence systems, Bruce K. Gagnon reported.

The US has established military bases in Romania and Bulgaria, with plans for another in Albania, in an attempt to surround Russia.

Bases with missile defence systems are located in Turkey, Poland and Romania, while US Navy destroyers with comparable capabilities operate in the Black Sea.

Similarly, NATO has expanded into Latvia, Lithuania and Estonia on Russia's border, with talk of Georgia, Sweden, Ukraine and Finland joining NATO and thus adding to the potential for encirclement.

US and NATO deployment is designed to "safeguard oil and gas fields in the [Caspian Sea] region", according to General James Jones in 2006 when he was NATO's Supreme Allied Commander Europe.

The US Navy is also preparing to increase its presence in the Arctic, officially to "protect shipping". However, Senator Angus King (Independent-ME) has observed that previously inaccessible fossil fuels in the Arctic will now be accessible, suggesting that, as in the Caspian Sea region, protection of sea lanes is linked to the potential for increased oil extraction in the Arctic.

In encircling China, the US Navy has Aegis-equipped destroyers with missile capabilities patrolling the region. In addition to the naval presence, there are 30 ground-based missile defence systems in South Korea as well as at bases located in Hawaii, South Korea, Japan, Guam, Okinawa, Taiwan, Australia and the Philippines.

Author and professor Noam Chomsky has described US foreign and military policy regarding oil supplies as a "lever of world domination". Control over natural resources keeps competing markets dependent on the US as well as in line with its interests.

14. Global Forced Displacement Tops Fifty Million

On World Refugee Day 2014, the global total of people who had undergone forced displacement was the highest on record since World War II.

A "Global Trends" report compiled by the UNHCR (United Nations High Commissioner for Refugees) established a figure of 51.2 million globally displaced people at the end of 2013, an increase of six million from 45.2 million in 2012.

The globally displaced population consists of refugees, asylum seekers, and internally displaced people who have fled their homes to other parts of their home countries.

Refugees account for 16.7 million people worldwide— including over six million who had been in exile for more than five years by the end of 2013.

Over half (53 per cent) of the 11.7 million refugees under the UNHCR's mandate came from three countries: Afghanistan (2.56 million), the Syrian Arab Republic (2.47 million) and Somalia (1.12 million). (The remaining five million Palestinian refugees are registered under the United Nations Relief and Works Agency, UNRWA.)

In a span of just five years, Syria has gone from being the world's second-largest refugee-hosting country to being its second-largest refugee-producing country.

The report documented nearly 1.2 million asylum seekers, including a record 25,300 asylum applications from children who had been separated from or were unaccompanied by their parents.

Internally displaced people amounted to a record 33.3 million people, the largest increase of any group in the "Global Trends" report. The UNHCR noted that "helping these people represents a special challenge as many are in conflict zones".

Further, the report noted that the figure of 51.2 million forcibly displaced people does not include the worldwide population of stateless people.

Noting that statelessness "remains hard to quantify with precision", the UNHCR reported a figure of 3.5 million stateless people based on data reported by the governments of 75 countries. However, recognising limits in that

data, the UNHCR estimated that statelessness affected closer to 10 million in 2013.

15. Big Sugar Borrowing Tactics from Big Tobacco

The Union of Concerned Scientists reported in June 2014 that "food and beverage manufacturers along with industry-supported organizations such as trade associations, front groups, and public relations firms" have actively sought to ensure that Americans continue to consume sugar at high levels.

The sugar industry has adopted many of the same tactics previously developed and employed by the tobacco industry, including attacking scientific evidence, spreading misinformation through industry websites, research institutes and trade associations to deceive the public, deploying industry scientists, influencing academia and undermining policy.

16. US Military Sexual Assault of Colombian Children

According to an 800-page report commissioned by the Colombian government and the Revolutionary Armed Forces of Colombia (FARC), US military personnel raped at least 54 children in Colombia between 2003 and 2007.

Adriaan Alsema, writing for Colombia Reports, was first to report the story in the English-language press on 23 March 2015.

Alsema's article highlighted the subsection of the report authored by scholar Renan Vega, who documented that US military contractors sexually abused more than 50 underage girls in the town of Melgar in 2004.

Vega reported "abundant information about the sexual violence" as well as the US contractors' "absolute impunity" due to "bilateral agreements and the diplomatic immunity of United States officials".

According to Vega, the US military contractors also "filmed [the abuse] and sold the films as pornographic material".

Alsema's report documented additional instances of sexual abuse, including the drugging and rape of a 12-year-old girl by Sergeant Michael Coen and defence contractor Cesar Ruiz in 2007.

Despite warrants issued for the arrest of Coen and Ruiz by Colombian prosecutors, the warrants were not executed due to diplomatic immunity granted to US military personnel and civilian contractors.

In fact, Alsema reported, no arrests have been made in any of the cases regarding children raped by US military contractors.

17. Media "Whitewash" Senate's CIA Torture Report

Although the corporate and progressive press alike focused public attention on the US Senate Intelligence Committee's December 2014 report on the CIA's secret program of abductions, "brutal" interrogations and torture of terrorism suspects, Nafeez Ahmed reported that this coverage has "whitewashed the extent to which torture has always been an integral and systematic intelligence practice since the second World War".

Despite President Barack Obama's claims that he officially banned torture in 2009, these practices continue today, "under the careful recalibration of Obama and his senior military intelligence officials", serving to "legitimize the existence and expansion of the national security apparatus", Ahmed wrote.

President Obama did not ban torture in 2009, Ahmed reported, and now his administration is "exploiting the new Senate report to convince the world that the intelligence community's systematic embroilment in torture was merely a Bush-era aberration that is now safely in the past".

In fact, Obama's 2009 executive order "rehabilitated torture". That order required that interrogation techniques fit the US *Army Field Manual*, which complies with the Geneva Convention prohibitions against torture that date back to 1956.

However, in 2006, revisions to the manual added 19 different methods of interrogation that "went far beyond the original Geneva-inspired restrictions" of the previous field manual.

At the time, Obama's Director of National Intelligence, Admiral Dennis Blair, advised the Senate Intelligence Committee that the *Army Field Manual* revisions allowing "new forms of harsh interrogation" would remain classified.

"What we are seeing now," Ahmed wrote, "is not the Obama administration putting an end to torture, but rather putting an end to the open acknowledgement of the use of torture as a routine intelligence practice."

The Senate's complete report ran to 6,700 pages, yet after White House objections only a 499-page summary was published in December 2014, with significant details redacted.

As the Bureau of Investigative Journalism reported, less than one quarter of the 119 detainees named in the Senate report on the CIA's secret torture program are actually housed at the Guantanamo Bay military prison.

The Bureau's investigation has produced a database providing details of what occurred to each of the 119 individuals.

Research by the Bureau of Investigative Journalism documented that only 36 individuals of the 119 were sent to Guantanamo after CIA interrogation. Of these, 29 remained as of January 2015. Seven of the 36 were released between March 2007 and January 2010, with six moved abroad and one sent to a maximum-security prison on the US mainland.

18. ICREACH: The NSA's Secret Search Engine

Based on documents leaked by Edward Snowden, Ryan Gallagher reported for *The Intercept* that the National Security Agency (NSA) has developed a "Google-like" search engine called ICREACH, which has the capacity to gather personal information.

This search engine can access over 850 billion personal records, including private phone calls, emails, Internet chats and some cellphone locations. The NSA is sharing the data collected through its ICREACH program with nearly two dozen US government agencies.

"The documents provide the first definitive evidence," Gallagher wrote, "that the NSA has for years made massive amounts of surveillance data directly accessible to domestic law enforcement agencies."

Planning documents specifically identify the Federal Bureau of Investigation (FBI), the Central Intelligence Agency (CIA) and the Drug Enforcement Administration (DEA) as "core members", Gallagher reported.

According to a December 2007 NSA secret document: "The ICREACH team delivered the first-ever wholesale sharing of communications metadata within the U.S. Intelligence Community."

The *Intercept* reported that one key issue raised by the ICREACH program is whether domestic law enforcement agencies, such as the FBI or the DEA, have used ICREACH to trigger secret investigations of US citizens through a controversial process known as "parallel construction".

As Gallagher explained, parallel construction involves information gathered covertly by law enforcement agents, who subsequently create a new evidence trail that excludes the original, covert one.

"This hides the true origin of the investigation from defense lawyers and, on occasion, prosecutors and judges—which means the legality of the evidence that triggered the investigation cannot be challenged in court."

19. "Most Comprehensive" Assessment Yet Warns Against Geoengineering Risks

Two comprehensive reports by dozens of researchers convened by the National Academy of Sciences (NAS) offered "a fairly damning critique of geoengineering", according to Tim McDonnell of *Mother Jones*.

Highly controversial, geoengineering refers to technological efforts to counteract global warming by altering the atmosphere's chemical composition.

The first of the two NAS reports found that most proposals to remove carbon dioxide from the atmosphere—through processes such as fertilising the ocean with iron to dissolve carbon dioxide—are too expensive to be implemented widely.

However, as Robinson Meyer reported in the *Atlantic*, a February 2015 University of Oxford study found that reforestation—planting trees—is among the "most promising" short-term responses to climate change.

The Academy's second report evaluated proposals to seed the atmosphere with particles to reflect sunlight back into space, a process known as "albedo modification". According to the NAS study, albedo modification is inexpensive compared with carbon dioxide removal proposals but involves unknown risks.

Implementing technologies to block solar radiation would entail "significant potential for unanticipated, unmanageable, and regrettable consequences in multiple human dimensions, including political, social, legal, economic, and ethical dimensions" according to the authors of the NAS study.

As Jeremy Schulman reported in a subsequent article in *Mother Jones*, Ken Caldeira, one of the climate scientists who first ran models to test potential geoengineering solutions, continues to advocate geoengineering research—but not as an immediate or best response.

As Schulman reported, Caldeira would "much rather stave off global warming by drastically cutting carbon emissions". Caldeira's stance aligns with the conclusions of the National Academy of Sciences.

20. FBI Seeks "Backdoors" in New Communications Technology

Responding to announcements by Apple and Google that they would make customers' smartphone and computer data more secure, in October 2014 the FBI's director James Comey announced that the Bureau was seeking to enlarge its data collection capabilities to include direct access to cellphones, tablets and computers through an expansion of the 1994 Communications Assistance for Law Enforcement Act (CALEA).

Comey told an audience at the Brookings Institution that expanding surveillance was in the interest of public safety to protect the nation against potential terrorist threats.

According to the FBI director: "Unfortunately, the law hasn't kept pace with technology, and this disconnect has created a significant public-safety problem."

Specifically, Comey called on Congress to update CALEA to mandate all software and hardware providers to build interception methods into their products and services.

21. The New Amazon of the North: Canadian Deforestation

Since 2000, Canada has led the world in deforestation, despite being overshadowed by reports of the forests in Brazil and Indonesia.

With only 10 per cent of the world's forests, Canada now accounts for 21 per cent of all deforestation in the world. Surges in oil sands and shale gas development, logging and road expansion have been the major contributors to the destruction of Canada's forests.

According to Stephen Leahy, writing for the Inter Press Service, deforestation by Canada and other countries deposits more carbon dioxide into the atmosphere than does all of the world's transportation machinery.

22. Global Killing of Environmentalists Rises Drastically

A 2014 report, *Deadly Environment*, by the nongovernmental organisation Global Witness revealed that from 2002 to 2013 at least 908 people globally were killed due to their environmental advocacy, with the rate of murder doubling in the last four years.

Latin America and Asia show the highest rates of violence as tensions over limited natural resources in these regions escalate. Will Potter wrote for *Foreign Policy* that, today, "Brazil remains overwhelmingly more dangerous for environmentalists than other countries".

Twice as many environmentalists were killed in Brazil as in any other country. However, Brazil is just one especially striking case in what is a global trend.

Though the Global Witness report is significant, it has limitations of its own, Potter noted. "The research is confined to 74 countries in Africa, Asia, and Central and South America, and it only includes murders," he observed.

"Nonlethal violence and intimidation, which [are] much more pervasive, are left out." Further, the report does not address the "well-documented history of violence against environmentalists in Western countries".

23. Unprocessed Rape Kits

A report by the White House Council on Women and Girls titled "Rape and Sexual Assault: A Renewed Call to

Action", issued in January 2014, revealed that nearly one in five US women have experienced rape or attempted rape in their lifetime.

Furthermore, the report indicated that, although the testing of rape kits—forensic exams that collect evidence of rape or sexual assault, including the perpetrator's DNA—can be "vital for the prosecution of cases", a backlog of untested rape kits may factor into low rape prosecution rates.

The report described a DNA Backlog Reduction Program, administered through the National Institute of Justice, which would fund 120 state and local crime labs to conduct DNA testing.

In March 2014, the White House announced that its fiscal year 2015 budget would provide \$35 million for a new grant program to "inventory and test rape kits, develop cold case' units to pursue new investigative leads, and support victims throughout the process".

24. NSA's AURORAGOLD Program Hacks Cellphones around the World

The National Security Agency (NSA) has hacked cellphone networks worldwide for many years, according to a report in *The Intercept* based on documents provided by Edward Snowden.

Ryan Gallagher's article analysed the contents of at least nine NSA documents that show how the NSA has spied on hundreds of companies as well as other countries that are close to the US.

As Gallagher reported, through a secret program codenamed AURORAGOLD the NSA sought "security weaknesses in cellphone technology" to "exploit for surveillance".

Furthermore, Gallagher wrote, the documents also revealed NSA plans "to secretly introduce new flaws into communication systems" which would make those systems easier for the NSA to access—a "controversial tactic that security experts say could be exposing the general population to criminal hackers".

AURORAGOLD monitored the contents of messages sent and received by over 1,200 email accounts associated with major cellphone service providers.

In some cases, this allowed the NSA to intercept "confidential company planning papers" that would help it "hack into phone networks", Gallagher wrote.

"Even if you love the NSA and you say you have nothing to hide, you should be against a policy that introduces security vulnerabilities," said Karsten Nohl, a leading cellphone security expert and cryptographer, "because once NSA introduces a weakness, a vulnerability, it's not only the NSA that can exploit it".

The existence of the NSA surveillance units that conducted AURORAGOLD has not been publicly disclosed.

However, the NSA documents revealed that as of May 2012, the agency had technical information on "about 70 percent of cellphone networks worldwide—701 of an estimated 985—and was maintaining a list of 1,201 email 'selectors' used to intercept internal company details from employees", wrote Gallagher ("Selector" is an NSA term for a unique identifier, such as an email address or a telephone number.) .

AURORAGOLD appears to have been active since 2010, according to the documents.

Summarising Nohl's comments, Gallagher noted that "the broad scope of information swept up in the operation appears aimed at ensuring virtually every cellphone network in the world is NSA accessible".

25. Greenland's Meltwater Adds to Rising Sea Levels

In February 2015, Tim Radford reported for the Climate News Network that atmospheric warming is capable of reaching thousands of metres below Greenland's massive ice sheet, potentially increasing the glaciers' rate of flow and creating pools of "meltwater" trapped below the ice. Two separate but related studies confirmed that surface melt can drain down to fill concealed lakes under the ice, ultimately contributing to rising sea levels.

Editor's Note

This article is edited from Project Censored's compilation. To see the complete text, links and references, go to www.projectcensored.org/category/top-25-of-2014-2015. The book *Censored 2016: Media Freedom on the Line* is now available from <http://www.projectcensored.org>.

Trials and Tribulations

The Truth about Clinical Research

Many people willingly participate in clinical trials that test products and treatments, but few are inclined to volunteer for pharmaceutical drug trials. Even though strict guidelines are mandated, testing on humans can have unforeseen consequences.

by Leon Horton
© October 2015
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Volunteering for clinical research trials can be a rewarding experience, not least financially—or so the literature would have us believe.

To offer oneself as a guinea pig for the future benefit of others is undoubtedly a selfless act, but under what safeguards are these studies conducted? What sort of people volunteer for them? And what would they say to anyone interested in getting involved? An occasional test subject, I have put clinical research under the microscope.

"You don't want to do that—you might grow a second head." Thus opined my friend when I told him I'd signed up to test a new hygiene product for some extra cash.

Quite how a mouthwash might result in an extra noggin is anyone's guess; but with several high-profile accusations of clinical malpractice levelled at pharmaceutical and drug-testing companies in recent years, I decided to conduct a little research of my own.

With the announcement in September 2014 that the UK National Health Service (NHS) communications manager, Ruth Atkins, had volunteered to be injected with an Ebola vaccine containing genetic material from the Zaire strain of the virus, the media were champing at the bit with speculation and doom mongering.

Few seemed interested in reporting that the vaccine is based on a benign cold-like virus found in chimpanzees, that it cannot cause the volunteer to develop Ebola, or that it simply allows the recipient's cells to release a protein and thus create an immune response. That wouldn't make good copy.

Rather, it seems, the media prefer to wait with ready-made headlines, hoping for the kind of negative coverage that sells newspapers—and, yes, I can see the irony in that statement given the very nature of this article.

I think much of this is psychological: say "clinical research" and most people, like my aforementioned friend, presume you mean "drug testing" and will regale you with second-hand horror stories of exploding brains, spontaneous sex changes and the acquisition of tertiary nipples.

Such fears, of course, are not without precedence. From the horrors of Nazi doctors conducting experiments on concentration camp victims during World War II to the thalidomide scandal of 1957-1961, clinical research communities have faced serious PR problems when it comes to allaying our concerns about the work they do in the name of progress.

But that plays into the hands of the detractors somewhat, since many thousands of clinical research studies are conducted every year, without incident, without side effects and without hitting the headlines. And whereas all drug testing comes under the banner of clinical research, not all clinical research studies concern drug testing.

A Brief History of Clinical Trials and Ethical Standards

The First Clinical Trial, 1747

The first proper clinical research trial came in the wake of the disease scurvy and its catastrophic effects on the welfare of sailors on long-distance voyages. Physician James Lind conducted the trial on infected sailors and established beyond doubt that scurvy is caused by vitamin C deficiency.

The Nuremburg Code, 1947

At the end of World War II, Nazi doctors who had performed human experiments were tried at the war crimes tribunal in Nuremburg. During the trials, the Nuremburg Code was drafted as a set of standards for judging physicians and scientists who had conducted biomedical experiments on concentration camp prisoners. This became the foundation of many later codes intended to ensure that clinical research involving human subjects is

carried out in an ethical manner.

The Thalidomide Scandal, 1957-1961

In the 1950s, thalidomide was developed as an anticonvulsant drug and introduced onto the German market without any governmental review. Thalidomide was prescribed to expectant mothers to control the symptoms of morning sickness, and led to many babies being born with severe physical disabilities.

The Declaration of Helsinki, 1964

The ethical principles set out in the Nuremberg Code were elaborated on and clarified by the World Medical Association. The Declaration of Helsinki provides the ethical foundation for the European Clinical Trials Directive as well as all UK clinical research legislation.

Good Clinical Practice (GCP), 1996

The clinical trials "bible" was introduced, the contents of which have been implemented in the European clinical trials quality standards through the Clinical Trials Directive of 2001 and the GCP Directive of 2005. These directives have been turned into law by each of the EU member states.

Bad Clinical Practice, 2001

Published simultaneously in 12 major journals, a joint editorial exposed the levels of control that sponsors exert over clinical trials, attacking the use of contracts that allow sponsors to review the studies prior to publication and, if they wish it, suppress the results.

Ugly Clinical Practice, 2012

Pharmaceutical giant GlaxoSmithKline was fined US\$3 billion for civil and criminal fraud after pleading guilty to charges relating to unlawful promotion of prescription drugs, bribing doctors, withholding data, and making false and misleading claims about the safety of drugs.

AllTrials Campaign, 2013

Calling for all trials to be registered and the results reported and made publicly available, the AllTrials campaign was launched in January. Within months, the campaign grew to become the mainstream, normative position in the UK, with the Medical Research Council, the Wellcome Trust and even GlaxoSmithKline signing up to a new agreement for transparency in research.

Trial and Trial Again, 2015

Former priest Adrian Hailer announced his intention to sue Novartis after he developed brain damage following a trial for a medication to treat a bone marrow condition. The drug was approved by the EU in August 2012.

A clinical trial is best defined as either a biological or a behavioural research study on human test subjects, designed to answer specific questions regarding anything from the effects of a new vaccine or drug, to effective treatment models for biological or behavioural disorders, to the requirements of certain health conditions, to testing new devices and healthcare products intended for the open market.

For the majority of those who volunteer for such studies (and I include myself in this), the experience has only ever been positive.

Product Testing

Former social care support worker Neal, 52, started volunteering with Intertek, a testing and certification company for the chemicals and textiles industries, after a friend, already a volunteer, recommended it.

"I was waiting to start a new job and needed some extra cash. As a single parent, my reasons for signing up were mostly financial, but I was also curious about the work they were doing," says Neal. "I ended up testing a new deodorant."

So how did he find the experience? "It was fascinating. I met some nice people, and the money came in handy," recalls Neal. "The deodorant gave me a rash, but it soon cleared up."

Would he ever consider drug testing? "I wouldn't rule it out. It would depend what it was for. I'm quite open to new experiences. Last year, I took part in a sunburn study for Manchester University that involved taking several biopsies from my buttocks."

Testing a new deodorant is classified as a "low-risk" study, but under UK statutory law it is every bit as subject to

the stringent regulations laid down in the guidelines for Good Clinical Practice (GCP) as would be, say, a new antiviral drug or painkiller. GCP considered to be the clinical trials "bible", is an international quality-assurance standard for how clinical trials should be conducted and is designed to protect the rights and health of volunteers.

Clinical trials on humans constitute only a small part of the extensive research that goes into developing a potential new product, treatment or drug.

With the occasional exception, where it is deemed expedient to fast-track a study (the new Ebola vaccine being a case in point), any proposed trial must undergo several years of rigorous laboratory research before it is approved by regulatory bodies and reaches a stage where human test subjects are involved.

Subjects Sharon and Danny, a married couple in their 40s, started volunteering four years ago after a recruitment leaflet was dropped through their letterbox. A private tutor and a sound engineer respectively, they have taken part in numerous skin, hair and dental studies.

"We're both self-employed, so can fit the studies around our work," says Danny. "The process is easy and the studies are always interesting."

Sharon agrees: "I like doing a variety of things to make money, and as a science teacher I'm always fascinated by frontline research."

Despite some initial reservations from friends and family, the couple are happy to recommend this type of clinical research to anyone in reasonably good health.

"I think some people mistake product testing for drug trials," says Danny, "which we wouldn't consider."

Drug Trials

It is perhaps unsurprising that even seasoned volunteers shy away from drug trials when you consider what happened in 2006 at Northwick Park Hospital, London. Six male volunteers were contracted by the US drug-testing company Parexel to test a new anticancer drug known as TGN1412.

Within minutes of being injected, the men began vomiting, their heads puffed up to twice their size and some began slipping into and out of comas as they showed signs of multiple organ failure. By all accounts, it was a deeply disturbing story. All the volunteers recovered, thankfully, but the incident raised serious concerns about trial procedures and medical ethics.

An interim report in April 2006 by the UK Medicines & Healthcare Products Regulatory Agency found that Parexel had conducted the study according to protocols and concluded that the serious adverse reactions experienced by the volunteers were the result of "an unpredicted biological action".

The episode was played down by the industry, but it is fair to say that drug-testing companies and clinical trials in general took a critical drubbing.

In his *Sunday Times* bestseller *Bad Pharma: How medicine is broken, and how we can fix it*, Dr Ben Goldacre sees the events at Northwick Park as symptomatic of a wider, systemic problem with research studies, where interested parties such as pharmaceutical companies can exert, quite legally, undue influence on the results of clinical research.

"Drugs are tested by the people who manufacture them, in poorly designed trials, on hopelessly small numbers of weird, unrepresentative patients, and analysed using techniques which are flawed by design, in such a way that they exaggerate the benefits of treatments," Goldacre writes in the book's introduction. "Unsurprisingly, these trials tend to produce results that favour the manufacturer. When trials throw up results that companies don't like, they are perfectly entitled to hide them from doctors and patients, so we only ever see a distorted picture of any drug's true effects."

A writer for the *Guardian* and advocate of the AllTrials campaign for full disclosure of all clinical trial results, Goldacre contends that the incident at Northwick Park could have been avoided if all researchers were compelled by international law to publish and share their data.

He notes [2013 ed., p. 356]: "We need to ensure that all trials report their results within a year at the very latest; we need to measure compliance with that; we need stiff penalties for companies who transgress; and we need doctors and academics who collaborate in withholding trial data to be held personally responsible, and struck off."

Bad Pharma is a complex and difficult book, its depth and scope too far-reaching to cover in much detail here, but anyone thinking of volunteering for drug trials would be well advised to read this seminal work first.

Not everyone has a horror story to tell when it comes to drug testing. Maggie was a barmaid in her early 20s when

she took part in residential drug trials with Medeval, now ICON Development Solutions:

"I had friends who'd done it," she says. "All said it was easy money, nothing to it, perfectly safe, etc. I had been broken into twice and was just desperate to move. I just wanted to make some money to put a deposit down on a flat."

Was she concerned about possible side-effects? "No. I did two trials, both for drugs already in use, which I considered to be less scary. One involved being woken up every morning with a shot of vodka. So what's not to like?"

So she'd do it again? "I couldn't, even if I wanted. I have a history of depression, which would automatically exclude me from most studies. That and the fact that my mum, who was a nurse at the time, was horrified when she heard what I was doing. Looking back, I think she was maybe right to be concerned. She was much more aware than I was that things can go wrong."

And go wrong they did in India between 2008 and 2011 when over 2,000 deaths were recorded during clinical drug trials in the country, forcing the Indian government to tighten the regulations surrounding what was described as "a culture of impunity for drug research companies and the doctors who work for them".

The researchers involved, many of them multinational pharmaceutical companies, were initially drawn to India (where the clinical trials industry is estimated to be worth £326 [A\$706] million) for several reasons, including patient availability, low costs and a "friendly drug-control system".

The companies concerned defended themselves by insisting that they were conducting trials on patients who had little or no hope of cure; that in consequence, they could not be blamed for their deaths; and that the standards applicable to all clinical trials in India are no different from those in the USA and the European Union.

With the resultant change in the law, however, many of these companies, led by America's top research centre, the National Institutes of Health, subsequently pulled out of India—a move which did little to assuage the concerns of the World Health Organization and the general public.

Ebola Vaccine Study

Little wonder, then, at the media interest surrounding the fast-tracked Ebola trial at Oxford University and Ruth Atkins's decision to be the first test subject for the new vaccine. Atkins, a former nurse with the NHS, was reported as saying:

"I volunteered because the situation in Africa is so tragic and I thought being part of this vaccination process was something small I could do to hopefully make a huge impact." She went on to add that she felt fine after her injection and that "it felt no different to being vaccinated before going on holiday".

In 2014, the Ebola virus killed more than 2,400 people in Africa, the world's largest outbreak since the disease was discovered in 1976. According to the World Health Organization, the strain has a mortality rate of up to 90 per cent, and it is for this reason that the new study, involving up to 60 volunteers, has been backed by the UK Medical Research Council and the UK Department for International Development. Funding for the trial comes in part from a £2.8 [A\$6.1] million grant from the Wellcome Trust.

Leading the study, Professor Adrian Hill of The Jenner Institute stressed that all the volunteers are safe, saying:

"We are not doing the trial itself any faster. It's the arrangements, the approval for the trial from manufacturers, regulatory bodies and the ethical council that has [*sic*] happened in record time when under any other circumstances it would have taken years. The tragic events in Africa demand an urgent response."

It remains to be seen if the Ebola vaccine proves to be an effective treatment, but no one in their right mind would deny the need for clinical research trials: they are essential for the development of new medicines and modes of treatment. And how else will we find the cure for cancer?

However, the regulations and codes of conduct under which studies are carried out need to be of a universally accepted standard set in international law, and not dictated by the financial considerations of multinational pharmaceutical companies, private health bodies or cash-strapped governments.

Risks of Volunteering

As for volunteering, it remains with the individual to decide what they are willing to participate in and to verse themselves fully on the potential risks.

"I'm not sure I'd recommend drug testing," says Maggie, the exbarmaid. "It would depend what it was for. I'd say use your common sense. If they want to make you taller or fill you full of hormones, just say no."

About the Author:

Leon Horton is a freelance journalist and writer. After studying medical laboratory science for a year, he realised this wasn't for him and he moved into the media—first as a scriptwriter, then as a writer for magazines. He lives and works in Manchester, England, and continues to wonder why. He can be contacted at leonhorton@live.co.uk.

Editor's Note:

Due to space constraints, we're not able to include sources for quotations in this article. Interested readers can email the author for more information.

How to Manage the Immune System

The immune system tries hard to eliminate and clean up toxic and metabolic waste, but this process can cause inflammations that are characteristic of chronic diseases. We need to know how to strengthen and control the immune functions in order to revitalise the body.

by Walter Last
© October 2015
Website:
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Conventional medicine and even many natural therapists do not understand key aspects of the immune system and how it works to protect, regenerate or even harm us, and this causes much suffering and premature death.

Imagine that you have advanced cancer but you are confident that you will beat it because you are doing the very best in natural therapy, using the Gerson therapy or something similar, essentially living on fresh organic juices and salads.

All seems to go well; you feel good—but suddenly, out of the blue, comes a violent reaction with powerful inflammations all through the body. You end up in hospital, but nothing can be done to stop the inflammation.

I encountered this situation when being asked what to do for a woman on Gerson therapy for breast cancer when she developed a strong inflammatory reaction. Days later, she was put into hospital. I do not know which drugs she was given, but two weeks later she was dead.

A similar pattern can be seen with the pioneering clinical cancer trials of Ewan Cameron and Linus Pauling (see <http://tinyurl.com/opld6c4>).

Overall, the outcome was positive because most of the terminal patients survived much longer than the matched controls. But there was also a downside: as with the Gerson therapy, many patients died suddenly from powerful inflammations.

Another scenario: a young and healthy-looking woman once came to me after she'd had her left breast removed a few weeks earlier.

She was happy about it; the doctor had told her that it was only a very small lump and they got it all. Two to three years later, I read in the local newspaper that she had died.

Medical researchers now acknowledge that a high number of young women die two to three years after breast cancer surgery, while older women are not affected by this phenomenon and may die many years later from mycoses (systemic fungal infections) and muscle wasting or cachexia (see <http://www.mdpi.com/2072-6694/2/2/305/pdf>).

Another woman I knew had successfully applied Cansema[®], or black salve, over her breast tumour. It shrivelled up and fell out, but three months later she was dead.

Now, let's look at autoimmune diseases. Commonly these are associated with dangerous inflammatory reactions.

Corticosteroids, such as prednisone and prednisolone, are used medically to suppress strong inflammations. But these drugs have serious long-term side effects such as adrenal insufficiency, osteoporosis, infections and cataracts.

Therefore, the aim is to phase out corticosteroids gradually and, if possible, replace them with less harmful drugs.

This may work initially, but near the phase-out point or even some time later the inflammation may hit again with full force and sometimes life-threatening results.

Patients are again put on high-dose corticosteroids. This process may be repeated several times, or the patient may be kept long-term on these drugs.

Can you see what all these examples have in common? It is inflammation. What causes such persistent and even life-threatening inflammations? Our immune system!

Patients in the above examples did not die or face life-threatening inflammations due to their disease, but because their immune systems were not properly controlled.

In the first example it is easy to understand how the immune system becomes too strong and starts a full-scale inflammatory attack on any tumours, often with unfortunate outcomes, but what happened in the other examples?

High-dose vitamin C has a strong immune-boosting effect. A quantity of 10 grams daily of sodium ascorbate was used in that Cameron-Pauling trial; it gave the immune cells the ammunition to attack any tumours vigorously.

Also, it should be noted that surgery causes strong inflammations. It has been shown conclusively that this is the time when malignant tumours start spreading metastases, even if the surgery was unrelated to the cancer (see <http://tinyurl.com/ompv8xr>).

Young women usually have a stronger immune system than older women. This causes much stronger inflammations and more death in young women.

Furthermore, black salve, just like surgery, induces strong inflammations.

With autoimmune diseases, the immune system starts attacking the pleomorphic (shape-changing) microbes hiding in affected organs or glands.

Corticosteroids suppress the immune system and, with this, also any existing inflammations; but when drugs are gradually eliminated, the immune system may explode again and the patient is put back on high-dose emergency corticosteroids.

I did not have a problem getting patients with all kinds of autoimmune diseases back to normal within a few weeks on a fasting-cleanse with mainly fresh raw vegetables.

However, there was a proviso which I realised only later: it worked only if patients had not been on immunosuppressive drugs. It appears that the immune system, when released from its chains, initially overreacts.

So here we have the answer to how to work *with* rather than against the immune system: it must be made strong but controlled by keeping it on a short leash.

Therefore, our first question is: how can we build and maintain a strong immune system? To answer this, we must find out what causes our immune system to become so weak that it is possible to develop cancer, an autoimmune disease, cardiovascular disease, a mental disease or one of the many varieties of old-age diseases.

Our Immune System: Functions and Deterioration

The immune system is the key for keeping or making our bodies healthy. It has two important functions: it protects us from dangerous microbes, and it helps remove harmful metabolic waste products and toxins. Both factors are main causes of diseases and ageing.

A weak immune system allows pathogenic microbes to invade and propagate, causing most of our diseases.

Common examples of a failing immune system are autoimmune diseases, cancer and chronic inflammations—including inflammations of the blood vessels, leading to heart attacks and strokes (see <http://mpkb.org/home/diseases/cardiovascular>).

Almost all chronic diseases are associated with inflammatory conditions that may remain low-key but sometimes flare up as acute, debilitating inflammations.

This applies not only to allergies, arthritis, asthma, autoimmune diseases, cancer and others with obvious signs of inflammation, but also to Alzheimer's disease, anxiety, chronic fatigue, depression, emphysema, fibromyalgia, heart disease, obesity, osteoporosis and stroke where you may not notice an inflammation. (See <http://tinyurl.com/pk54ear> for an explanation.)

Furthermore, all of these diseases are microbe-related and show a high degree of toxic and metabolic waste accumulations.

This is especially well researched in Alzheimer's disease, but these accumulations are present in varying degrees in almost everyone and are a fundamental cause of chronic inflammation and premature ageing.

All health deterioration has a common link, being mainly caused by a combination of inferior nutrition, pollution, negative mental-emotional aspects and inherited weaknesses.

Generally we do not inherit diseases as such but, rather, weaknesses in specific organs, glands and functions.

Our nutrition greatly affects the quality of our immune system, while the mental-emotional aspect has a large bearing on the type and location of any developing health problem. Microbes and waste products always attack the

weakest organs and functions.

I see mainly three factors coming together to cause the common deterioration of our immune system.

These are: the increasingly severe health problems inherited from our parents, our unhealthy and largely unnatural living conditions, and the health damage caused by medical drugs and modern dentistry.

The first two factors cause us to develop health problems already at a young age. These are then intensified by a heavy schedule of vaccinations and by the inappropriate use of antibiotics.

The general principle of vaccinations is good. The main problem is the injection of highly toxic material directly under the skin, while naturally we usually come into contact with pathogenic microbes and toxins through the mucous membranes.

This is especially damaging when vaccinating young children with an immature immune system. I prefer children to develop a strong immune system by coming into contact early and in a controlled way with the pathogens in our environment.

However, overall, I see intestinal dysbiosis caused by antibiotics as the main cause of our health deterioration and the subsequent development of our modern diseases; this is also a cause of premature ageing.

Cancer, autoimmune diseases and cardiovascular diseases were rare before the widespread use of antibiotics. Chemotherapy, immunosuppressive drugs and even birth control pills cause dysbiosis as well.

Many research articles now show the importance of healthy gut microbes and the health damage caused by intestinal dysbiosis with a dominance of pathogenic microbes.

However, as yet, few researchers acknowledge that this problem is mainly caused by broad-spectrum antibiotics without simultaneous protection with fungicides, leading to an overgrowth of *Candida albicans*.

Conventional medicine believes that even if *Candida* overgrowth is sometimes triggered, it can later be treated with a fungicide. But this is only true for the relatively harmless yeast form of *Candida*. When doctors believe that the yeast infection has been cured, that is when the real problem has only just started.

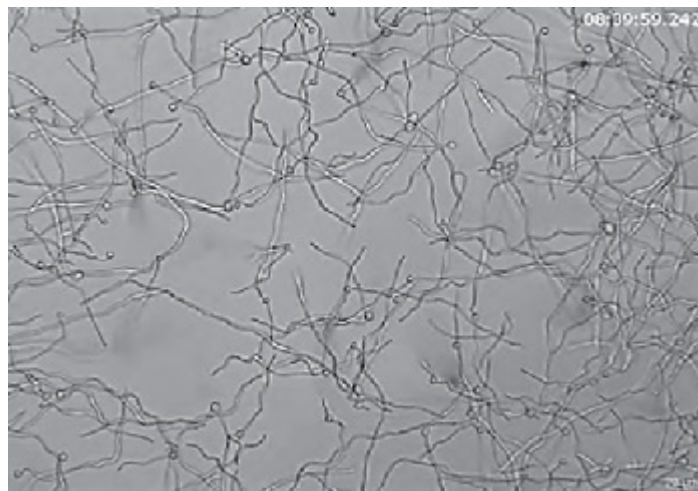


Figure 1: Hyphal *Candida*; see <http://tinyurl.com/pl2nyzf> for a one-minute video showing *Candida* changing from round yeast cells to this hyphal mycelium. Another interesting image of hyphal *Candida* is at <http://tinyurl.com/nqt4v5j>

An overgrowth of the small round yeast cells can lead within a short time to the transformation into a highly invasive hyphal form with long tentacles or strings. Hyphal *Candida* (figure 1 above) can easily penetrate mucous membranes and skin and live inside the affected wall of an organ, be it intestines, vagina, bladder or mouth.

Inside the skin or mucous membranes, the invading *Candida* is largely protected from antifungal remedies.

In addition, hyphal *Candida* forms a tough chitin shell on its outside. Hyphal *Candida* growing inside the wall of the intestinal tract cannot be detected with standard medical tests.

Candida overgrowth may also be associated with small intestinal bacterial overgrowth (or SIBO). Hyphal *Candida* alone or in combination with SIBO causes chronic intestinal inflammation, thereby making the wall permeable for

microbes and toxins to pass from the gut into the blood.

Medically, this is intestinal permeability (commonly called "leaky gut syndrome") and is aggravated in susceptible individuals by reactions to gluten and casein from A1 milk.

Intestinal inflammation is at present the most common attack on our immune system and has far-reaching health consequences.

Initially it leads to overacidity, multiple allergies, digestive difficulties, lowenergy and mental-emotional problems, while long-term it is the underlying cause of most of our modern diseases (see <http://tinyurl.com/pbdkcbd>).

Leaky gut syndrome causes the blood to become toxic and leads to infestation with pleomorphic microbes (see <http://tinyurl.com/8a28mo2>).

Blood-based microbes may actually originate from the incomplete breakdown of unhealthy body cells. They seem to start as tiny protein blobs and grow through various viral and bacterial shapes into fungi.

Some researchers call these entities the "cancer virus" or "cancer microbe". After injecting small amounts of these microbes into mice, autoimmune or collagen diseases developed, while injecting larger amounts led to cancer (see <http://www.rense.com/general72/cancer.htm>).

How far and how fast these microbes develop depends on the toxicity of the blood and the strength of the immune system. But overall, this is the key factor that weakens the immune system, which now puts all its resources into cleaning up the blood without being able to make any headway unless we succeed in resealing the intestinal barrier.

Moving images of blood-based microbes can be seen at <http://tinyurl.com/pkh3cws> and <http://tinyurl.com/o8afquo>. Also interesting are detailed drawings and descriptions of the development cycle of pleomorphic blood microbes; see the pdf at <http://tinyurl.com/3ehmxta>.

In the head of club-shaped microbes, new spores or viruses are evolving. When the structure reaches a certain size, the head explodes and releases a new batch of virus-sized particles into the blood.

Immune cells or phagocytes gobble up these virus forms; but if there are too many, these virus forms just continue to develop inside the phagocytes and eventually break out again with large heads full of viruses that are released into the blood.

Mitochondrial Diseases

Mitochondria are structures in cells that produce energy by oxidising our food to carbon dioxide and water in the citric acid cycle.

Excess carbohydrates can be converted into fats with the help of insulin, and glucose can be made in the liver from amino acids derived from proteins.

Conventional medicine regards mitochondrial diseases as relatively rare and caused by faulty genes or acquired later in life due to drugs, infections or other causes.

In contrast, I regard most of our modern diseases, including cancer and mental diseases, as basically inflammatory mitochondrial diseases.

There are two main defects in mitochondrial diseases: one is an inability of the amino acid carnitine to channel fatty acids into mitochondria, and the other is a blockage in the final steps of oxidising nutrients to carbon dioxide and water.

Therefore, energy is mainly produced from the anaerobic breakdown of carbohydrates, which yields only 20 per cent of the energy that would be produced in the citric acid cycle.

This process generates large amounts of lactic acid, making the body overacidic and causing mineral deficiencies, inflammations and pain.

The energy deficit is even greater if fats and oils cannot be properly utilised. These are either not well absorbed, mainly in individuals who have difficulty gaining weight, or they are just stored in fat tissue, causing overweight and obesity. The end result is lack of energy and a craving for carbohydrates to get more energy.

However, usually only a certain percentage of mitochondria are dysfunctional, so the overall effect can be very different in different individuals and depends very much on recent *Candida* activity as well as on the focal area of mitochondrial dysfunction.

In some, it affects mainly the brain; in others, muscles or joints or specific organs. Normally lemon juice is alkalising, but this blockage of the citric acid cycle makes affected individuals more acidic instead.

The primary mitochondrial dysfunction is in the liver, This leads to the common condition of pyroluria, a defect in the production of haem (or heme) needed in haemoglobin and in different forms by all cells for controlled oxidations.

Candida and pyroluria work hand in glove to produce most of our modern diseases by blocking mitochondrial energy production (for more details, see <http://tinyurl.com/ltbaqhk>).

Conventional medicine accepts acetaldehyde, a small 2-carbon molecule, as an initiator of liver disease by poisoning liver mitochondria.

However, this research focuses only on the oxidation of ingested alcohol to acetaldehyde in the liver (<http://tinyurl.com/na3xfqs>).

A much greater but officially ignored problem is the production of acetaldehyde by *Candida*, yeasts and other fungi. *Candida*-produced acetaldehyde is able to enter the blood from the intestines, the vagina or mouth, and so can poison mitochondria in any susceptible part of the body.

Normally the liver produces a specific haem that oxidises acetaldehyde into useful acetic acid, but this path is obstructed in pyroluria. Frequently affected are brain and nerve functions, often leading to mental and emotional diseases.

Acetaldehyde also interferes with the major neurotransmitter, acetylcholine. A specific disease will develop mainly in the part of the brain or nervous system with the most severe mitochondrial dysfunction.

This applies to Alzheimer's disease, autism, dementia, depression, schizophrenia and other mental and neurological diseases.

Stopping acetaldehyde supply to the brain may be curative, especially if combined with pyroluria therapy and increasing brain energy with coconut oil, DMSO (dimethyl sulphoxide) and vitamins B₃ and B₅.

In muscle cells, acetaldehyde blocks the oxidative energy production, leading to chronic fatigue. Mitochondrial dysfunction is associated with overweight or underweight (see <http://tinyurl.com/q3bnh2n>).

Another widespread problem caused by *Candida* and pyroluria is an underactive thyroid. Pyroluria inhibits the conversion of vitamin B₆ into its active form P5P (pyridoxal-5-phosphate) and causes deficiencies of P5P and zinc.

This leads to insufficient hormones and enzymes, while acetaldehyde also causes energy deficiency in the thyroid itself. Furthermore, elemental iodine is needed to produce thyroid hormones.

Due to low levels of thyroid haem, there is not enough thyroid peroxidase to oxidise dietary iodide to iodine. Thyroid peroxidase requires selenium, which is often deficient. Iodine, rather than iodide, is also needed for tissue regeneration.

A further example of P5P deficiency is a defective conversion of the amino acid tryptophan into vitamin B₃ which is essential for cellular energy production. Instead, this blockage generates toxic xanthurenic acid which binds insulin and is a main factor in causing diabetes.

Organs affected by energy deficiency do not remove all toxic and metabolic wastes; these then remain stored in the cells, inhibiting normal functions.

This provides ideal breeding grounds for pathogenic microbes and makes us more susceptible to infections. The immune system tries to eliminate pathogenic microbes and clean up dangerous waste proteins. This then generates the inflammations characteristic of chronic diseases.

Improving the mitochondria is especially difficult with inherited mitochondrial dysfunction. Commonly liver mitochondria are most affected, manifesting as pyroluria and other liver diseases. In addition, other organs or systems may be damaged.

A main problem is the difficulty of the liver in converting vitamin B₆ into the metabolically active P5P and this leads to insufficient production of enzymes, hormones and proteins needed by the immune system.

Additional damage results if pathogenic microbes take up residence in damaged cells of affected organs. This may then lead to an autoimmune disease, or by forming a biofilm colony a tumour may grow.

These microbes block cellular energy production even more than *Candida*-generated acetaldehyde. The more the oxidative energy production in a tumour is decreased, the more malignant it is.

The connection between cancer and *Candida* can also be seen from the accidental cures of leukaemia after treating *Candida* (<http://tinyurl.com/nqzqfta>). Six more recent cases are reported at <http://tinyurl.com/qhkshgd> (click on "PDF").

Strengthening the Immune System

Individuals with chronic diseases or advanced age can be expected to have dysfunctional immune systems, while most others have varying degrees of immune weakness.

Therefore, strengthening the immune system needs to be the first step followed at the appropriate time by sedating or controlling it if and as needed. The main steps for strengthening the immune system are:

- intestinal sanitising to reseal the intestinal barrier;
- controlling pathogenic microbes;
- periodic cleansing to remove toxins and metabolic wastes;
- improving liver functions and controlling pyroluria;
- providing nutrients needed by the immune system;

Intestinal Sanitising

Intestinal sanitation can be the most difficult part of the whole program. Antibiotics leading to *Candida* overgrowth usually mark the start of our long-term health deterioration, but, in time, other pathogenic microbes and parasites may also move in.

Treating cancer and other chronic diseases without sanitising the intestines is like mopping up the floor because of an overflowing sink without turning off the running tap. The main steps in intestinal sanitation are:

- cleaning out the intestinal tract;
- using antimicrobials with good antifungal activity;
- providing beneficial or probiotic microbes;
- supplying prebiotic food for desirable microbes to thrive;
- minimising foods and drugs that damage our gut microbes.

Cleaning out the intestinal tract may initially be done with a strong laxative such as Epsom salt or magnesium chloride, taken together with an antimicrobial such as chopped garlic or ginger.

On subsequent days, psyllium may be used on its own or alternated with diatomaceous earth. Mix psyllium with plenty of water. Into a large glass of water, stir a microbicide, e.g., chopped garlic or ginger, and one rounded teaspoon of psyllium. Take this on an empty stomach about 30 minutes before breakfast. Drink more water afterwards.

Probiotic microbes may be supplied from fermented food, especially vegetables fermented with lactic acid bacteria; also kefir or kombucha may be suitable, as are soil-based microbes, e.g., as in Prescript-Assist™ or Effective Microorganisms® (EM® probiotics).

Organic leaf and root vegetables pureed in a high-speed blender after only minimal cleaning provide beneficial microbes and also the prebiotics that they need in order to multiply. Other suitable prebiotics are inulin, fructo-oligosaccharides (FOS) and resistant starch (RS).

These feed mainly the microbes in the colon—good for preventing or treating inflammatory bowel diseases and colon cancer. You can obtain RS by adding a small raw potato (avoid any with green skins) when blending vegetables.

To make isolated RS, blend some peeled potatoes and refrigerate. After a short time, the RS granules accumulate at the bottom and you can pour off the liquid. One hundred grams of raw potato provides a recommended daily amount of 25 grams of RS. For a good article on RS, see <http://tinyurl.com/pfng3da>

A common drawback with prebiotics is increased wind. This can be minimised by slowly increasing the amount of prebiotics and using psyllium before breakfast and possibly other meals.

Psyllium reduces wind by removing toxins and excess microbes. In addition, we must greatly reduce our intake of easily digestible carbohydrates, especially sugar and flour products. For more on intestinal sanitation, see <http://tinyurl.com/pqmn9xw>.

Controlling Pathogens

Though the main concern is with *Candida*, sooner or later other pathogens and parasites start invading the gut and the blood. The problem is to select remedies that mainly affect the pathogens and leave our good microbes alone.

We do not need to eliminate pathogens completely with these remedies but, rather, shift the balance so that the good microbes have the upper hand. They will then keep the bad ones under control as long as we give them the right food.

Trying to clean the blood will be futile as long as the intestinal barrier is not sealed. When it is eventually closed by sanitising the intestines, then the immune system will also get the upper hand to clean the blood and infested organs.

Natural remedies such as coconut oil, garlic and ginger and also borax, iodine, kerosene and olive leaf extract do not seem to be a problem for our good microbes and therefore can be taken long-term. Borax and gum turpentine are effective against parasites.

For more information, see <http://tinyurl.com/4cxzpu7>

These remedies are also suitable for treating acute microbial and parasitic infections.

Periodic Cleansing

When we eat fewer calories than the body needs, then the body starts digesting metabolic wastes accumulated in cells, tissues and blood vessels; it even breaks down cysts, tumours and other diseased tissue.

This greatly reduces any later inflammatory immune reactions. We can maximise this effect by periodically adopting a cleansing fast on fresh raw foods.

A suitable program for someone with a chronic disease or for serious health improvement would be one week of fasting each month, but start with one or two days and increase gradually.

Most effective are very fresh, young and organic leaf vegetables such as wheat or barley grass or other sprouted seeds grown to the leaf stage.

Root vegetables can also be used. Fresh juices or purees made in a highspeed blender may be used in addition to salads, fresh fruits and virgin coconut oil.

Also, sip several litres of high-quality water before meals and keep the bowels moving. If you develop uncomfortable problems such as diarrhoea, nausea, headaches, muscle or joint pain, stop the fast and return to your normal diet.

Use a less-intensive approach during the next fasting period. For additional information on fasting and cleansing, see <http://tinyurl.com/5ucxwa3>

Improving Liver Functions

The liver is the main organ for detoxifying drugs and fat-soluble toxins. With weak liver functions, these toxins tend to accumulate in the body.

Furthermore, the inherited or acquired condition of pyroluria causes deficiencies in the production of enzymes, hormones, neurotransmitters and other key proteins, including those needed by the immune system. The main actions we need to take are:

- improving the energy metabolism of the liver;
- minimising pyroluria by taking P5P, zinc and other nutrients;
- improving the release of bile and the fat metabolism.

We can improve liver energy by taking medium-chain triglycerides (MCTs) with most meals, preferably by mixing a tablespoon of virgin coconut oil with some food up to five times daily.

MCTs can be absorbed without needing bile or pancreatic lipase, and can be metabolised even with damaged liver mitochondria.

Coconut oil and palm kernel oil (but not palm oil) have about 65 per cent MCTs, butterfat about 12 per cent, but there are no MCTs in other commonly used fats and oils.

If more MCTs are ingested than needed for liver energy, then surplus fatty acids are exported to the rest of the body in the form of water-soluble ketoacids.

These are suitable as a source of energy for damaged mitochondria in the brain, heart and muscles. Ketoacids are used to treat drug-resistant epilepsy and are beneficial for Alzheimer's disease, Parkinson's disease, depression, mental diseases and other brain disorders.

Increasingly ketoacids are being used as part of a low-carbohydrate ketogenic diet, which provides energy for normal cells but starves microbes and cancer cells.

Ketoacids are not stored in the body; any surplus is expelled through the kidneys. Therefore, they do not cause any weight problems.

Instead, with overweight they help to reduce weight, while with underweight they provide additional energy to gain weight. While originally ketogenic diets were based on long-chain fatty acids, it is preferable to use mainly coconut oil.

I expect that most individuals with chronic diseases, and especially the elderly, have weak liver functions with borderline or full pyroluria.

So it is only prudent to supplement with P5P and zinc in addition to B vitamins and essential minerals (see <http://tinyurl.com/tbqahk>).

P5P deficiency causes a multitude of problems, e.g., a blocked conversion of methionine into cysteine, leading to accumulation of homocysteine associated with heart disease and diabetes.

This greatly reduces not only available cysteine but also the sulphur amino acid taurine and sulphate needed for building connective tissue and detoxifying the liver.

Taurine has many important functions, including for the heart and for blood sugar control (see <http://tinyurl.com/oxq3qbf>), but in this context it is a main ingredient in the formation of bile.

Bile is formed from combining taurine or glycine with oxidised cholesterol. Bile emulsifies fats for proper absorption but also releases toxins processed by the liver,

Less taurine means less bile, higher cholesterol levels, more gravel and gallstones, poor absorption of fats and a more toxic liver.

The chain of treatment for restoring liver energy, bile flow and fat metabolism is to take:

- coconut oil several times daily for liver energy and the production of ketoacids;
- P5P and zinc to enable the synthesis of essential proteins;
- up to half a teaspoon each of taurine and N-acetyl-carnitine with breakfast and lunch to produce more bile and generate energy from long-chain fatty acids

Providing Nutrients for the Immune System

Nutrients for the immune system are best provided from a quality diet high in very fresh raw food. Prime examples of this are fresh young leaves of wheat or barley grass, green vegetables or edible weeds, used as juices or pureed in a high-speed blender. In addition, supply all the vitamins and minerals that the immune system needs to be fully effective.

A main problem related to pyroluria is weak antioxidant protection combined with high oxidative stress.

This is largely due to a deficiency of cysteine, the main component of glutathione, our main antioxidant. Immune reactions generate reactive oxygen radicals, leading to strong tissue inflammations unless they are quickly neutralised by glutathione.

Because of glutathione deficiency, pyroluria is associated with tissue-damaging immune reactions such as psoriasis. This can be improved by treating pyroluria and supplying cysteine (as N-acetyl-cysteine), high amounts of antioxidants, and broccoli sprouts for sulphoraphane.

High doses of vitamin C, mainly as sodium ascorbate, in addition to MSM (methylsulphonylmethane) are effective immune boosters (<http://tinyurl.com/l9h5pg>).

B vitamins, especially vitamins B₃ and B₅, are needed at all stages of energy production and other metabolic functions. With brain diseases or muscle fatigue, try up to 3 x 500 milligrams of B₃ and half that amount of B₅; increase gradually.

Protein-digesting enzymes taken before meals reduce the quantity of stored waste products and dead protein structures or microbial biofilms. Try taking serrapeptase, nattokinase or bromelain, which are strongly anti-inflammatory (see <http://tinyurl.com/b995onm>).

Of further help are nutrient-dense green powders such as spirulina, chlorella, wheat and barley grass powder, and a great variety of special foods such as astaxanthin, garlic, purple berries and turmeric.

Other methods to strengthen the immune system are: having appropriate skin exposure to sunlight, walking barefoot on grass, doing outdoors activities, getting sufficient quality sleep, and doing mind and energy exercises. It's also very important to try to live a low-stress life.

However, it is equally necessary to avoid or minimise factors that weaken the immune system such as overacidity, worry, chemical food additives, sugar and flour products, fungi, moulds, yeasts and many more. Minimise pro-inflammatory foods such as wheat gluten and casein in A1 milk (see <http://tinyurl.com/ngej5bh>).

I also believe that most medical drugs increase liver toxicity and suppress immune functions.

Controlling the Immune System

A strong immune system can be expected to keep our body clean and healthy and to react appropriately at all times.

Problems arise when the immune system has a basic weakness, commonly due to hyphal *Candida*, pyroluria-related liver conditions, nutritional deficiencies or medical drugs. Then it tends to act erratically.

Pathogenic microbes may now be dominant in the intestinal tract, and pleomorphic microbes multiply in the blood. Specific organs may be under autoimmune attack or there may be cysts or tumours.

The immune system is no longer in control but still reacts forcefully to any emergency. This happens especially when the immune system has been suppressed, as with medical drugs or due to nutrient deficiencies.

It can no longer react appropriately to blood pathogens or tumours, or it may fight only a weak rearguard action leading to chronic inflammation.

However, when our immune system is no longer suppressed by drugs or deficiencies, or if it gains sufficient help from vitamin C or antimicrobial remedies, it may suddenly spring into powerful action. One of its main weapons is the release of pro-inflammatory hormones to initiate a generalised body inflammation.

It can be very confusing for us when our weakened immune system does not react proportionally to our health improvement efforts. We may greatly upgrade our diet, drink lots of fresh raw juices and take suitable supplements, but for a long time nothing happens.

Then, out of the blue, a powerful inflammation begins to spread quickly all over the body with lots of pain and discomfort. What can we do?

The preferred way is to prepare well in advance with intestinal sanitation and remedies to control *Candida* and other microbes.

Keep the urine slightly alkaline, investigate the possibility that you may have pyroluria and related deficiencies, improve the oxidative energy metabolism, and especially implement a schedule of periodic raw-food fasting.

All of this will greatly reduce the strength of the enemy against which the immune system needs to fight. Any inflammatory reaction, when it eventually arrives, will be much milder than if you do nothing to clean up and revitalise the body.

You do not know when the reaction will start or how strong it will be, but sooner or later it will arrive and then you must be prepared.

Commonly there will be moderate to strong inflammation, uncomfortable but bearable. In this case, the following recommendations can be applied gradually.

However, in case of advanced cancer and after immune-suppressive drug therapy, slam down the brakes very hard to avoid driving full speed into a brick wall. This means immediately reversing all efforts to strengthen the immune system: now it needs to be subdued.

As the most important action, immediately begin a fast on cooked rather than raw food. Use mainly fresh vegetables heated not higher than 100° C.

In addition, some subacid fruits such as apples are acceptable. Further, the fewer calories you ingest the more effective it will be.

Initially use less than half of your normal daily calories; if this does not have the desired effect, reduce food intake to less than a quarter of normal or even use a short water fast with herb teas.

When inflammations are under control, gradually increase the food intake and re-introduce suspended remedies and supplements.

If conditions get really tough, you may even consider a urine fast (see <http://tinyurl.com/3m6e5r5>)

This is better tolerated than a water fast and also stops energy supply for microbes and the immune system. This quickly causes all inflammations and pain to stop, usually within three days. Initially use additional sodium bicarbonate to alkalise the urine.

Simultaneously with the fast, use a high intake of good-quality water, about three litres daily, spread out during the day and sipped up to five minutes before eating food. In addition, strongly alkalise the body.

With very strong inflammation and pain, mix 3-5 rounded teaspoons of sodium bicarbonate with the daily drinking water. With milder reactions, try 1-3 teaspoons.

To control inflammations, the urine pH level should be between 7.5 and 8.0 (see <http://tinyurl.com/acu4cle>).

If your immune system overreacts, avoid or minimise remedies and conditions that strengthen it. This includes vitamin C and other immune-boosting remedies, sunbathing, citrus fruits and their juices, and also other acidic fruits.

However, high daily amounts of vitamin C should be reduced gradually, e.g., reduce intake to about 100 milligrams within a few days and then remain at this level.

In addition, you may try taking anti-inflammatory remedies such as blueberries and other purple berries and juice, cinnamon, cloves, ginger, oregano, rosemary and turmeric. Watch how your body reacts to such remedies.

Inflammations for Healing

The first inflammatory reaction with cancer or after immunosuppressive drug therapy is usually the strongest. Subsequent reactions tend to be less severe.

Basically, all inflammations are attempts by the immune system to heal the body. Therefore, if you have mastered the first strong reaction, generally feel well and are improving your health, it is not advisable to suppress newly developing mild to moderate inflammations in different parts of the body; control only the strong or generalised inflammations.

Normally when you start a proper health program, your wellbeing initially tends to improve markedly. However, after some weeks or months you may feel weak and unwell. This is the first of many healing reactions.

The body is programmed to heal weak organs and structures by producing healing inflammations so that immune cells can more effectively clean out toxins, microbes and metabolic wastes.

If we suppress too strongly such healing inflammations, the body can never heal itself and just continues to deteriorate. Most medical drugs have the effect of suppressing healing inflammations.

While inflammations caused by chronic diseases are destructive and initially should be stopped by strongly alkalising, healing inflammations are beneficial and the urine can be kept neutral or around pH7.0, except if inflammation and pain become too strong and temporary alkalising is advisable.

Commonly such healing inflammations start after the body has gained sufficient vitality.

This can be very confusing because we do not know if it is really a healing inflammation or if we did something wrong and it is an inflammation due to the start of a disease. Inflammations do not come with a label; they are just a fluid state where our health can improve or deteriorate depending on what we do. It is best to remain quietly confident and observe.

Healing inflammations often shift around to different parts of the body. Use the methods outlined above to control the inflammation, but do not suppress it; allow an inflammation in a controlled way.

Reduce your food intake; drink more water and juices. If it is not too severe, use mostly fresh raw food. Relax and meditate.

If you have already worked for some time to improve your health, then you can assume that this really is a healing inflammation.

Anticipate that your body will soon be healthier than it was before the reaction.

For a better understanding of such healing reactions, see my article at <http://tinyurl.com/q6lk78h>

About the Author:

Walter Last is a retired biochemist, research chemist, nutritionist and natural therapist based in Australia. His books are available at <http://tinyurl.com/4xkdgcu>

Walter Last is a long-time contributor to NEXUS. His most recent articles, "Pyroluria and *Candida*: Twin Causes of Modern Diseases" and "More Energy and Less Disease with Vitamin C and MSM", were published in NEXUS 22/02 (February-March 2015) and 21/02 (February-March 2014) respectively.

For more information, articles and advice, visit Walter Last's website: <http://www.health-science-spirit.com>

Sacred Solids in the Atomic Nucleus

Part 2 of 2

Dr Robert Moon's Platonic solids model, which proposes an arrangement for protons within the atomic nucleus, is taken a step further with a reordering that allows for the free spin of proton shells within each geometric structure.

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Moon's Model of the Atomic Nucleus

Dr Robert J. Moon proposed a model of the spatial distribution of nuclear protons that can be understood with the line of thought developed in the previous section.

Before going on, I reproduce a dialogue between Fletcher James (FJ) and Dr Moon (RM) regarding the nature of his model:¹⁴

FJ: Dr Moon, I have a fundamental question about what you are doing in filling in these solids. Are you proposing a structure in which you actually have, quantized within space, a fixed structure, and you have points, particles which are located at rigid fixed intervals from each other within the structure?

RM: No. You have singularities—singularities in space, particle singularities...

FJ: But at fixed, constant distances from each other? Or are you proposing that this is occurring in a phase space, and that there is a topological equivalence between this nesting?

RM: Well, no, this is actual space, so there should be a topological *equivalent* to it. But, this is, these singularities in space may have nothing in them. But they're just a place where these particles can go."

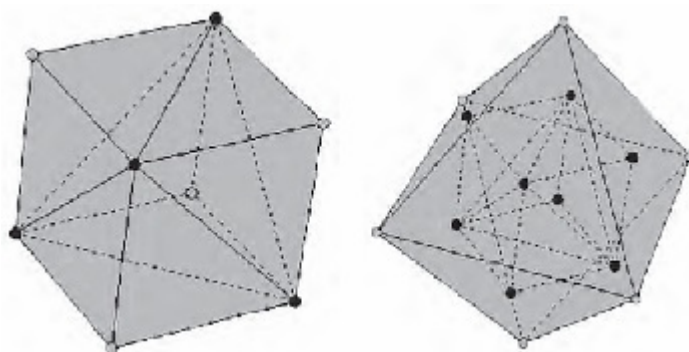


Figure 7 (a): The first shell proposed by Moon is a cube, which reflects the distribution of the eight protons in the nucleus of oxygen.

Figure 7 (b): The next shell would form after adding six new protons, reflecting the distribution of the 14 protons in the nucleus of silicon.

Dr Moon suggested that the first stable structure to form is a *cube*, whose vertices would define the distribution of the eight protons in the nucleus of *oxygen* (${}^8\text{O}$) (figure 7a).

After adding six more protons, the next shell to be completed is an *octahedron*. Altogether, they may reflect the symmetrical distribution of the 14 protons in the nucleus of *silicon* (${}^{14}\text{Si}$).

The octahedron and the cube form a dual pair, so Dr Moon placed the vertices of the cube in the midpoints of the faces of the octahedron (figure 7b). These eight points are all contained in the inscribed sphere of the octahedron.

So, actually, the inner cube structure would be able to move inside the octahedral structure according to the electrodynamic forces acting among the protons.

I offer an alternative distribution of these 14 protons in figure 6 [part 1]. I'll return to it in the next section. As I mentioned before, silicon is located near a minimum of the atomic properties shown in figure 2 [part 1].

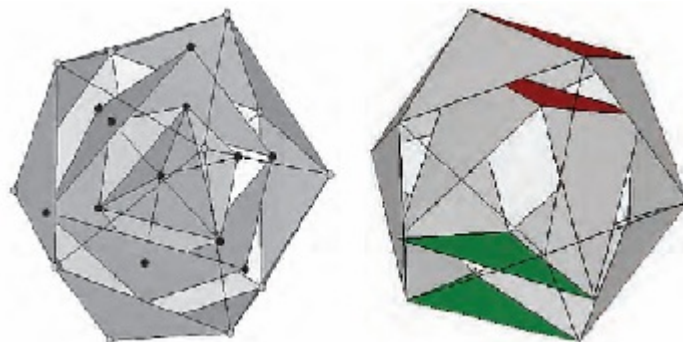


Figure 8 (a): The completion of the third shell in the form of an icosahedron reflects the distribution of the 26 protons in the nucleus of iron (${}_{26}\text{Fe}$).

Figure 8 (b): The vertices of the octahedron are located on six icosahedral faces in such a way that both solids have two mutually parallel faces.

The next proton shell proposed by Dr Moon is an *icosahedron*. It is reached after adding 12 new protons to the nucleus of silicon (figure 8a).

This would lead to the nucleus of *iron* (${}_{26}\text{Fe}$), totalling 26 protons. Iron is also near a minimum of the above-mentioned atomic properties of the elements.

There are many ways in which an octahedron can be inscribed into an icosahedron. In the first versions of his model, Moon placed the six vertices of the octahedron in the middle of six edges of the icosahedron.

Later, he proposed to place them onto six icosahedral faces so that two octahedral and two icosahedral faces become mutually parallel (figure 8b).

Please note that none of those locations of the octahedron inside the icosahedron would allow the former to spin freely. Later, I propose an alternative that would solve this problem.

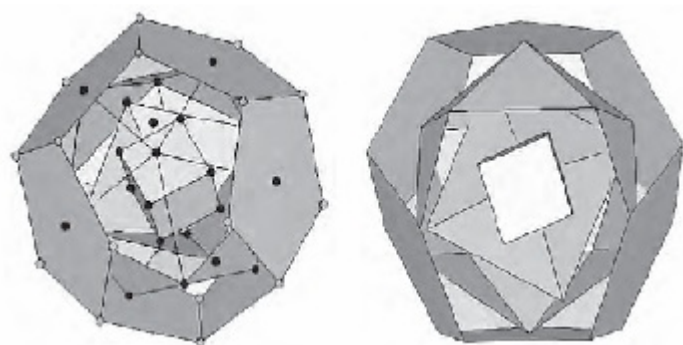


Figure 9: The completion of the fourth shell in the form of a dodecahedron reflects the distribution of the 46 protons in the nucleus of palladium (${}_{46}\text{Pd}$). The icosahedral vertices would be able to move freely inside the enveloping dodecahedron.

The last shell in this structure, as it could not be another way, is a *dodecahedron* (figure 9). After adding 20 more protons to the nucleus of iron, we would end up with the distribution of the 46 protons in the nucleus of *palladium* (${}_{46}\text{Pd}$).

Again, this element falls very near to the next minimum in the atomic properties shown in figure 2. The icosahedron and the dodecahedron are dual solids, so the vertices of the former would be located in the middle of the faces of the latter in a natural way.

As the 12 icosahedral vertices are all contained in the inscribed sphere of the dodecahedron, the inner icosahedral

structure would be able to move freely inside its enveloping dodecahedron.

Dr Moon proposed that after completing those four shells, the following elements would start forming a similar, twin structure on top of one of the dodecahedral faces.

Both structures would share the five vertices of that face as well as the icosahedral vertex located in its middle. So we would be left with just 11 icosahedral and 15 dodecahedral vertices.

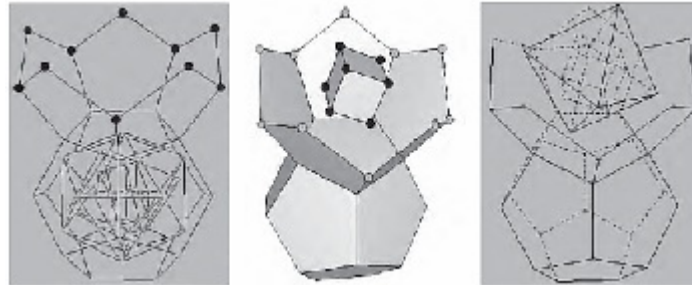


Figure 10: Moon proposed that (a) the first 10 protons of the twin structure occupy 10 dodecahedral vertices, and the structure reflects the proton distribution in the nucleus of barium ($_{56}\text{Ba}$), an element which marks the beginning of the lanthanides; (b) the completion of the inner cube leads to the nucleus of gadolinium ($_{64}\text{Gd}$); and (c) the completion of the octahedron marks almost the end of the lanthanides at ytterbium ($_{70}\text{Yb}$).

Dr Moon hypothesised that the first 10 vertices to be occupied by the new protons would belong to the dodecahedron (figure 10a).

They would reflect the distribution of protons in the nucleus of *barium* ($_{56}\text{Ba}$). The following eight protons would complete the inner cube, giving rise to the nucleus of *gadolinium* ($_{64}\text{Gd}$), in the middle of the lanthanide series of elements (figure 10b).

Almost at the end of the lanthanides we would find *ytterbium* ($_{70}\text{Yb}$), with a completed proton octahedral shell (figure 10c).

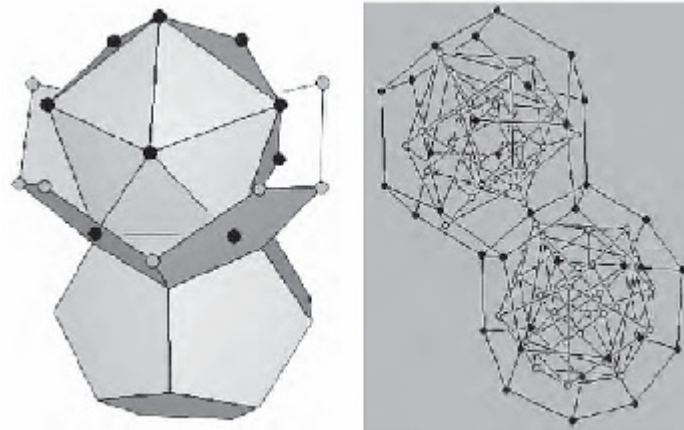


Figure 11 (a): The completion of the twin icosahedron leads us to the nucleus of thallium containing 81 protons.

Figure 11 (b): The last five protons complete the twin dodecahedral structure which reflects the 86 protons in the nucleus of the noble gas radon.

The next 11 protons would occupy the available vertices of the twin icosahedron, closing another shell and giving rise to the distribution of protons in the nucleus of *thallium* ($_{81}\text{Tl}$) (figure 11a).

Five more protons would close all the shells of the twin dodecahedron, placing us at the noble gas *radon* ($_{86}\text{Rd}$) (figure 11b).

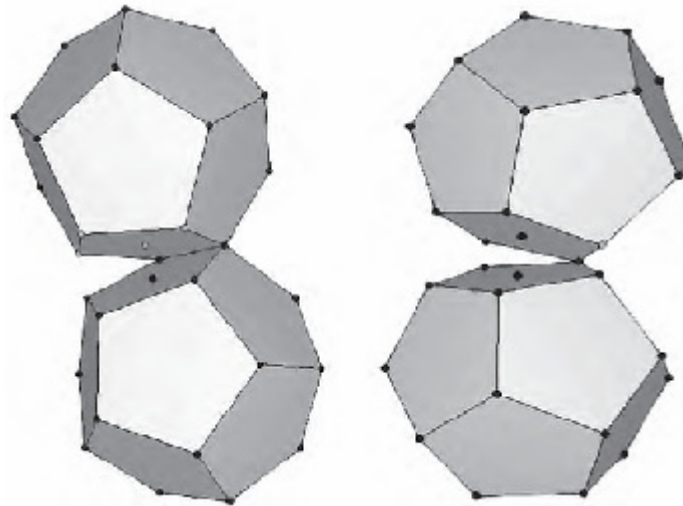


Figure 12 (a): To allow the next protons to find their places, the twin dodecahedra must open up, using one edge of the binding face as if it were a hinge. This would make room for four new elements, mostly unstable. Figure 12 (b): The next proton can be added if the hinge breaks and the structures are held together by a single proton.

Dr Moon proposed that in order to allow new protons into this structure, the two dodecahedra could separate as if they were hanging on a hinge (figure 12a).

That would free four spaces that could be occupied by four more protons. Two of the four corresponding elements, *francium* (${}_{87}\text{Fr}$) and *actinium* (${}_{89}\text{Ac}$), are not found in nature because their nuclei are unstable and do not last very long.

They have been made in nuclear reactors by bombarding elements with neutrons. To leave room for the additional nuclear proton of the next element, *protactinium* (${}_{91}\text{Pa}$), Dr Moon proposed that the hinge breaks and the twin structures are held together at one single point (figure 12b).

The construction of *uranium* (${}_{92}\text{U}$) requires that the last proton be placed at the point of joining.

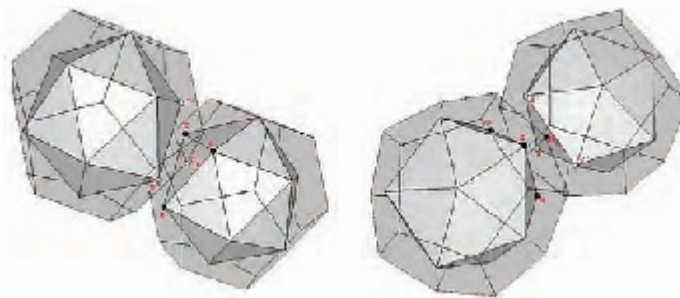


Figure 13: Two views of the twin interpenetrating structures. The exact placement of one vertex of each dodecahedron in the midpoint of each of the opposite icosahedral faces explains the exact number and disposition of neutrons proposed by Laurence Hecht.

This can be accomplished if the structure breaks and one solid is slightly displaced to penetrate the other (figure 13).

The exact interpenetration of the structure shown in this figure was proposed by Laurence Hecht, after defining a spin axis (explained in the next section).

The resulting structure, quoting Dr Moon, "is something that's ready for fission . if you try to put more neutrons in there, it's going to fissh".¹⁵

Dr Robert J. Moon was one of the scientists who first made fission happen in a wartime laboratory on the University of Chicago football field.¹⁶

The Axis of the Universe

Since the original conception of the model by Dr Moon, Laurence Hecht and his co-workers have been trying to develop it further.

One interesting thing about Hecht's proposals is the possible existence of a preferred axis of spin for the atomic nucleus. He suggests that this axis—called the Axis of the Universe—should be perpendicular to the mutually parallel octahedral and icosahedral faces shown in figure 8.



Figure 14: Top view of the Moon model from the Axis of the Universe proposed by Laurence Hecht. Note that the axis is diagonal to the cube and the dodecahedron, but not to the icosahedron or the octahedron.

In this way, the angular momentum of the protons around this axis is minimal in some of the shells, such as the cubic one (figure 14).

The reader further interested in the implications of this axis for the nuclear arrangement of protons as well as for the magnetic properties of the elements should refer to Hecht and Stevens.¹⁷

Free Spin of Each Shell

The vertices of the icosahedron, though originally placed at the centre of the dodecahedral faces, need not be there at all.

In fact, the whole icosahedral structure would be able to spin freely inside the dodecahedral structure in order to align itself in the best way with respect to the preferred axis of rotation.

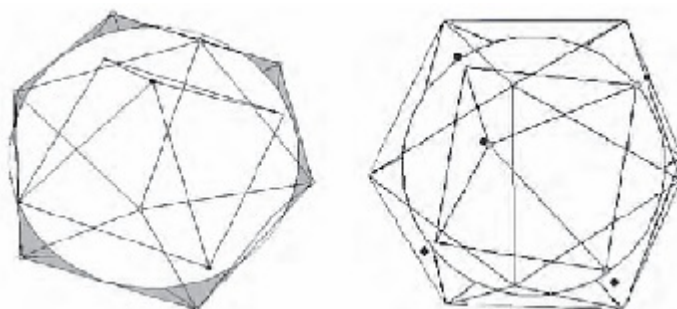


Figure 15 (a): The circumscribed sphere of the octahedron in Moon's original model is bigger than the inscribed sphere of the icosahedron.

Figure 15 (b): Slightly approaching the octahedral vertices to the origin would make both spheres coincident and would allow the octahedron to spin freely inside the icosahedron.

However, that would not be the case with the octahedral structure, because in the original Moon model its vertices surpass the icosahedron-inscribed sphere (figure 15a).

I suggest overcoming this limitation by reducing the distance of the octahedral vertices to the *centre* of the structure—and that of the cube vertices proportionally— so that the circumscribed sphere of the octahedron coincides with the inscribed sphere of the icosahedron (figure 15b).

With this simple adjustment, all four shells would be able to spin, one inside another, obviously constrained by the electrodynamic forces among their protons.

Is the Octahedral Shell First?

The order of filling of the first two shells—hexahedral and octahedral— is worth a bit more discussion. The attentive reader may have noticed that the element *oxygen* (${}^8\text{O}$), whose nuclear protons are organised in the form of a cube according to the Moon model, is not a minimum of the atomic properties shown in figure 2.

I suggest that this fact is easily explained by an alternative filling order of the first two shells.

As I commented earlier, the first four protons of the nucleus are likely to be organised in the form of a *tetrahedron*.

That would correspond to the nucleus of *beryllium* (${}^4\text{Be}$), which is near the first minimum of the aforementioned atomic properties.

The next proton (the fifth) would have no definite place to occupy, but when the number of six protons is reached, it is likely that the ensemble reorganises itself in the form of an *octahedron*, and that would correspond to the nucleus of *carbon* (${}^6\text{C}$).

This element is also close to a minimum of the atomic properties shown in figure 2, much closer than oxygen is.

The next pronounced minimum appears at *silicon* (${}_{14}\text{Si}$), which as already mentioned completes a *cube* and its dual, the *octahedron*. Which one is inside the other is not clear.

Dr Moon proposed that the cube goes inside, but, as I have just argued, it could well be the other way around.

What about Neutrons?

The atomic nucleus not only consists of positively charged protons, it also contains neutral particles, the neutrons.

The Moon model does not explain the location of neutrons inside the nucleus. In fact, Dr Moon had this to say:

"And the protons find their parking place at what would correspond to the vertices. And then the neutrons, which are also out there, were not going to worry about them because they have no charge and they can be most any place."¹⁸

However, Laurence Hecht has also worked on this topic and he essentially proposes that neutrons can occupy the midpoints of the edges of the nested Platonic solids as well as the centre of the icosahedral faces not already occupied by protons.¹⁹

The nucleus of uranium-238 provides striking evidence in support of his proposal. We have seen that in the uranium nucleus the two dodecahedral structures interpenetrate one another. The number of edges and face centres left for the neutrons to occupy are:

| | |
|-------------------|----|
| Cube faces | 6 |
| Cube edges | 12 |
| Octahedral edges | 12 |
| Icosahedral edges | 30 |
| Icosahedral faces | 13 |
| TOTAL | 73 |

That leaves 73 neutron positions on each twin structure, precisely the correct number for the 146 neutrons of uranium-238!

In addition, it should be noticed that my proposed reordering of the shell filling would not alter this count because the two additional faces of each icosahedron occupied by two extra vertices of the cube would be compensated by the two extra octahedral faces in the innermost shell, so the total would be the same:

| | |
|-------------------|----|
| Octahedral faces | 8 |
| Octahedral edges | 12 |
| Cube edges | 12 |
| Icosahedral edges | 30 |
| Icosahedral faces | 11 |
| TOTAL | 73 |

About the Author:

Jordi Sola-Soler is dedicated to the study of sacred geometry and dissemination of knowledge about it. His website includes 3D models of the sacred solids and the flower of life as well as discussion and graphics of the golden ratio in the Great Pyramid, the DNA structure, the atomic nucleus, musical scales, mathematics and much more.

For additional information, visit <http://www.sacred-geometry.es/> or contact the author by email at info@sacred-geometry.es.

Editor's Note:

This article is edited from the posting at <http://tinyurl.com/q8eoel6>

Endnotes

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MAGNETIC AMPLIFIERS: ANOTHER LOST TECHNOLOGY

edited by George Trinkaus © 2000
High Voltage Press, Oregon, USA

I had always believed that first came the vacuum tube, then the transistor, period. But, thanks to an old US Navy tech manual sent in by a reader, I've discovered a third "lost" entity. Electronics engineers of the 1950s believed that the rugged little magnetic amplifier was going to replace the fragile vacuum tube in all its functions under a megacycle.

Originating in the USA but adopted and developed by the Nazis for the V-2 missile, the mag amp after World War II found a clique of boosters among US electronics engineers. This document, unusually passionate and well written for a military tech manual, is their promotional brochure.

Evident today only in some motor-control and power-supply regulator circuits, the mag amp not only can regulate but can magnify, oscillate, modulate, switch, pulse-generate, invert, convert, multivibrate, phase shift and multiply. Mag amps require almost zero maintenance, can be made indestructible, and can handle up to 175,000 amperes.

This rare book has been completely reset and redesigned for economy and readability (High Voltage Press, ISBN 0-9709618-5-5, 43 illustrations). It contains the text and illustrations of *Magnetic Amplifiers: A Rising Star in Naval Electronics*, prepared by the Electronics Design and Development Division, Bureau of Ships, Department of the US Navy, 1951. The bibliography is published separately by High Voltage Press.

Thanks to Clyde Lofton for informing me of the existence of magnetic amplifiers and for sending in a partial xerox. Thanks to the Library of Portland State University, which (miraculously) had a pristine copy in its stacks. Thanks also to D.W. French, whom Mr Lofton acknowledged as his source for this rare document. — G. T.

Admiral Wallin's Preface

Magnetic Amplifiers (NavShips 900,172) is an unclassified publication which describes "an old device in a new suit". The device is the saturable core and the new suit is the core's use in electrical and electronic applications.

This material is published to encourage the use of the device in electrical and electronic applications where reliability of performance is the prime consideration. A review of machinery application principles is included as an aid toward understanding the general principles of the device.

H.N. Wallin
Rear Admiral, USN
Chief of Bureau
August 1, 1951

Design Engineers Please Note

This publication is not intended as an engineering manual. Mathematics and detailed circuitry were deliberately removed to simplify the presentation in a form easily assimilated by busy engineers who often do not have the time to study the more detailed technical papers previously presented on this subject.

1. Introduction

Naval electronics engineers are beginning to accept the fact that a competitor to the electron tube, in the power and control field, has not only penetrated their domain but is here to stay. When first confronted with this device, they simply ignored it as being an impostor, too slow, cumbersome and inefficient to be taken seriously.

Even when it started to strut in a new cloak of self-saturation and promoted itself to the rank of magnetic amplifier, it was still ignored by American electronic engineers. The device finally gave up in disgust and proceeded to Germany for physical reconditioning and a post-graduate course in social education.

The electrical-machinery people early visualized the advantages of the device as attested by the almost universal

application of this static control for rotating equipment.

Electronics engineers are now forced to concede recognition of the magnetic amplifier, as it has demonstrated its value beyond question in many fields previously dominated by electron tubes.

The significance of this development in relation to Naval engineering is better appreciated when it is realized that this component is applicable to almost everything that rotates or moves on a fighting ship: throttle controls on the main engines; speed, frequency, voltage, current and temperature controls on auxiliary equipment; fire-control, servo mechanisms and stabilizers for guns; radar and sonar equipment; pulse-forming, sweep multivibrator circuits for radar, loran, and transponder equipment; and computers, and course-and-speed plotters to verify the results.

The device is ideally suited to submarine and aircraft equipment because of the extreme voltage fluctuations of the prime power sources. Numerous countries have contributed to its evolution.

History

The magnetic amplifier is not new; the principles of the saturable-core control were used in electrical machinery as early as 1888 although they were not identified as such.

Saturable-core devices have been used, principally in heavy electrical machinery, in the U.S. since 1900. The U.S. Navy has been using them to a limited extent mostly as static control instruments in rotating equipment during the past eight years.

Development beyond this perimeter into the electronic field has been retarded in the U.S. primarily due to the reluctance of our engineers to experiment with a new device, especially in view of the excellent performance experienced with current electron tube equipment.

Many engineers are under the impression that the Germans invented the magnetic amplifier. Actually it is an American invention. The Germans simply took our comparatively crude device, improved the efficiency and response time, reduced weight and bulk, broadened its field of application, and handed it back to us.

It was mainly the improvement in processing magnetic material and the introduction of selenium rectifiers that led to the wide use of magnetic amplifiers by the Germans.

The German navy used the device in its master gun stabilizers. Their air force used it in automatic pilot and ground-approach systems. They also used it in servo and frequency-control systems for long-range rockets, blind landing aids, and to regulate the fuel flow in relation to atmospheric and ram pressure in some types of guided missiles. They also applied the device as cathode followers, replacing electron tubes in computer circuits. The German army had started to apply it to the V-2 rocket stabilizer and steering system.

German civil interests were also quick to visualize the advantages of this device. They had started to apply it to computing machines, electric brakes for trucks and locomotives, high voltage power lines (controlling up to 50,000 KVA), a.c. streetcar controls and other miscellaneous uses.

The fact that the Germans introduced the device into fields previously dominated by electron tubes is considered by many to be of as great importance as the technical development of the device.

Although Germany is unquestionably responsible for the rebirth of the magnetic amplifier, other countries (especially the U.S.) held a considerably greater number of patents on this device. The efforts of Sweden, England, and Japan were also considerable.

The reason for the Nazis assigning their best scientists and expending millions on its development in the midst of a bitter war has never been definitely determined. There was no shortage of electron tubes; performance of the tube-controlled equipment certainly was not improved by the substitution.

Considering the above, the motive warranting such expenditures appears to have been an acute shortage of field electronics technical personnel, making a dependable, maintenance-free device mandatory wherever possible.

The performance of the magnetic amplifiers obviously must have equaled that of the electron-tube circuits as these devices were used in some very critical applications, such as stabilizers, servos, and fire-control equipment in their latest fighting ships.

It was during the last war that the U.S. Navy started to exploit the device for purposes other than power regulators. Development contracts have now expanded into the highspeed range of digital computers and pulse forming, memory and scanning applications in radio, radar and sonar equipment.

Editor's Note:

This article is an unedited extract from *Magnetic Amplifiers*, available as a free pdf from Teslapress.com. See

George Trinkaus's Mag Amp Page at the same website. His book *Tesla Technology* was reviewed in 22/06. See his letter on Tesla's critics in this issue, 23/01.

Nan Madol

City of Spirits on the Reef of Heaven

The West Pacific megalithic complex of Nan Madol, with its constructions of prismatic basalt columns linked by waterways, served as a spiritual centre for the Pohnpeian ancestors and reflected a sunken cultural heritage beyond its shores that was connected with the Pleiades.

by Alistair Coombs
© November 2015
Email:
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Cast like a net of gems over the not-so-Pacific Ocean, clusters of isles array its watery vastness that drowns nearly a third of the Earth's surface.

Raised from hidden depths by volcanic force, these islands with their secluded shores, sun-drenched and moonswept beaches, mangrove gardens, stone gods and temples grip the imagination.

One of the most renowned megalithic sites of these island worlds is Nan Madol, tagged "the Venice of the Pacific", perched upon the southeastern coastline of Pohnpei.

In landmass, Pohnpei (formerly Ponape) is the third-largest member of the Federated States of Micronesia, a spray of over 600 islands so-named after their minuscule size.

Pohnpei is a compound name meaning "upon an altar", in reference to a cloud-capped mountain in the island's centre: at its summit is an altar of basalt together with a mangrove tree which symbolically image the birth of the isle from its ocean bed.

Known traditionally as Soun Nan-leng or "the Reef of Heaven", Nan Madol is a megalithic complex made up of over 90 man-made islets built on coral fill and spread 200 acres [81 hectares] over a lagoon edging Pohnpei's surrounding barrier reef.

The rectangular buildings of this lost metropolis, in such rare proximity to the natural systems of its environment, are assembled out of massive boulders and tidily stacked piles of prismatic basalt.

The four-to eight-sided columns of this dark, dense and smooth basalt material formed millions of years ago. When lava cools, it can have the distinctive appearance of hewn lumber so that sections of buildings made out of it resemble the cribwork of log cabins.

Running around and in between the cryptic silence of the islets is a network of connecting waterways, while guarding Nan Madol from battering ocean tides are the ruins of breakwaters along its coast.

The majority of crisscrossing waterways are today glutted with mangrove swamps, while thick tropical growth smothers nearly all of the islets—so making headway over either is a long, gruelling task.

If left unchecked, the invasion of jungle will devour the entire site—and initiatives to restrain it are not forthcoming. To date, Nan Madol is not a UNESCO World Heritage Site.

Today's Pohnpeians, a modern people by global standards, are loath to visit the site and under no circumstances go there at night. They believe that Nan Madol is haunted by ancient spirits and magic which should not be unsettled.

"Mystery" is often an overused term but is not without application here.

Nan Madol exemplifies its definition: the site is unique the world over; it stands outside attested history, its people utterly vanished, its purpose spectacularly obscure.

Construction of the site is currently perceived to date back no more than 1,500 years, although earlier foundations have been documented along with evidence of remodelling by successive occupants.

Modern scientific research of the complex began only in the 1960s and has largely been confined to topography and surface inspection—in the rare event it has been carried out at all.

Separated by a central canal, Nan Madol is divided into two main districts.

Its southwestern area was allocated to what are believed to have been administrative and residential islets, while its

northeastern islets housed its spiritual and mortuary temples and served as the focus of Nan Madol's ritual activities.

The purpose of Nan Madol is not the only conundrum. Much remains obscure and unanswered about how such a colossal amount of basalt was quarried and transported to the site.

Some of the stones have been chemically traced to a quarry on Pohnpei's opposite end. How the hundreds of thousands of tons of material was brought here remains a boggling question.

Was it ferried by raft along the coast or carted for miles over twisted terrain of mountain, hill, jungle and swamp?

A cornerstone of the mortuary islet of Nandauwas is estimated to weigh 60 tons, while the far smaller slabs and shafts commence from about five tons.

The sheer quantity of material makes these transport routes and methods appear impossibly bleak.

Constructed at a time when no more than an estimated 20,000 people inhabited the entire island, Nan Madol is an astounding feat, the Pohnpeian equivalent of the Giza pyramids.

Although named a "city", Nan Madol even in its heyday would not correspond with how we identify one, or any other type of urban settlement.

Though some of the buildings may have enjoyed pole-and-thatch roofing, the complex was not built with practical concerns in mind.

With no access to fresh water, it was not for general living. Though picturesque, it was not a seaside getaway. Clearly, Nan Madol was a priestly centre with a defined spiritual agenda.

The relatively shallow waterways, for example, which rise only waist deep even at high tide, were perhaps not intended solely to allow skiffs to travel between the islets but to enact rituals of initiation and journeys of the soul.

The name Nan Madol means "spaces between", and its islets, arranged in a grid pattern, could therefore also be understood as houses harbouring spirits from the spaces "in between"—another reason behind its unusual design and for the locals believing the place to be teeming with spirits.

Indeed, deeply embedded in the creative genius and sacred vision of Nan Madol and its connection with water is the notion of a mirror image.

As we shall see, it is a reflection of not only afterlife realms but also legacies of sunken cities beyond its shore. But who built this mysterious subaquatic world that joins with others?

Argonauts of the Pacific

Today's perspective on transoceanic migration between Pacific groups, Asia and the Americas continues to transform at an alarming pace.

The emerging picture holds Oceania to have been a much busier highway of exchange than was the view long before and after the days of Thor Heyerdahl's ethnographic studies.

A major barrier that prevented earlier consideration of nomadic outriggers' contacting disparate cultures and ethnic groups was the question of seafaring.

Basically, prehistoric peoples of Oceania were not ascribed navigational skills adequate enough to have crossed such vast sea distances and even relatively smaller ones between island chains, the trails of evidence left by these adventurous founders notwithstanding.

Though maritime structures and boats are not the most amenable to preservation, one cannot dismiss the forgotten methods of navigation enabling ancient seafarers to detect and colonise lands hidden within immense ocean wastes.

These forgotten Sinbads of the South navigated by signs such as species of bird that indicated nearby islands, types of fish associated with reefs and lagoons, cloud formations over distant landmasses, and sailing into swells bouncing back from land up to thousands of miles away.

Seabound for weeks to months through barrelling storms and the watery vastness, and guided by the compass and sextant of stars at night, these sailors performed hardcore feats of land-finding within gulfs of wilderness that have been compared with colonising the frontiers of outer space in our time.

Pohnpei itself is said to have been settled over a wave of seven ancestor migrations that arrived on the island from

the south.

The seventh of these included two brother magicians named Olosopa and Olosipa, to whom the construction of Nan Madol is accredited. Olosopa and Olosipa are said to have built the elaborate waterfront city with magic.

The brothers arrived at Pohnpei in a canoe from a sinking homeland named Katau. Katau may or may not specify another Micronesian island named Kosrae, itself home to megalithic ruins, situated 345 miles [554 kilometres] southeast of Pohnpei.

Since Katau is mentioned in reference to Pohnpei's earlier settlers, its geographical ambiguity perhaps indicates the degree to which locations on sea maps merged with mythical places in the sky seen above them.

The brothers Olosopa and Olosipa were related to a god of thunder and rain, and they brought to Pohnpei rituals and the worship of a god of agriculture under a dynasty known as the Saudeleur.

Over generations their dynasty became tyrannical and was eventually overthrown by an outsider named Isokelekel, who was another exile from Katau.

When the brothers arrived at Pohnpei, they surveyed the island looking for a suitable location to settle their kingdom along the coast.

They scaled a high mountain peak and from its vantage point saw an underwater city beyond the tidal flats southeast of the island.

They took this as a sign to build Nan Madol as the resurrection of the sunken "city" of Khanimweiso.

There was yet a larger inspiration from sunken ruins behind the renaissance of Nan Madol, since it was said that there was another submerged city, this one named Namkhet, further out to sea beyond Khanimweiso.

For decades, divers have reported undersea ruins at considerable depths off the coast of Nan Madol.

A diving team led by Dr Arthur Saxe of Ohio State University in 1978 confirmed some of these sightings following a series of manual surveys in Nahkapw Harbour, which is overlooked by the breakwaters of Nandauwas.

Saxe's team reported a number of coral-encrusted stone pillars, some of them in an upright position. Saxe developed an hypothesis known as "Blue Hole" to explain how the structures sank.

It involves a limestone cavern, which forms beneath reefs, imploding when its roof gives way. Saxe had it that Khanimweiso was built on top of a cavern that later collapsed.

This would also account for the legends of tunnels below Nan Madol, some of them linked to different islets, since these caverns are characterised by interconnecting passages and "rooms".

In 2013, Dr Saxe's report was challenged by a Japanese marine archaeological survey.

Following manual and multibeam sonar findings and informed by the research of a previous archaeological dive conducted by the University of Oregon in 1988-89, the team found one of the erect structures to be a natural formation rather than a coral-encrusted pillar.

The Japanese researchers also questioned Dr Saxe's Blue Hole hypothesis as being unlikely, but conceded that their findings do not rule it, or the possible existence of undersea heritage, out.

Their survey was also confined to the harbour rather than outside it.

Though we don't have access to these offshore ruins at present, the Nan Madol site was built as a reflection of something in that direction.

Gods of Thunder

To the ancient island-dwellers, the ocean represented the pervasive fabric of the cosmos. It bounded all horizons.

From an island-centred perspective, the limits of sight and awareness of where sea and sky met and melted in sunlit azure or faded in waves of galactic expanse at night signposted the land of the dead.

The ancestor world on the horizon could also refer to impenetrable marine trenches far from land, where objects might rise to the surface.

Things that came to shore from the beyond, such as driftwood or anomalous marine life, were possessed with portent and power—a view reinforced by tradition that ancestral founders of dynastic lines had come from outside.

The basaltic rock from which Nan Madol is built was a material of esteemed spiritual standing not only to the ancient Pohnpeians but also to other island people far from the water margins of Nan Madol.

The neighbouring isles of Truk, Kosrae, Ngartik and the Marshall and Gilbert Islands were united by a basalt cult.



Scattered and half-buried basalt columns at the Gunung Padang site in West Java. (Photograph: Alistair Coombs)

Basalt shrines on mountain peaks were spirit places, and basalt monoliths the abodes of gods and ancestors.

In addition to housing spirits, these "stone gods", literally blocks of basalt, marked the place of origin of clans since they embodied their founders.

This widespread diffusion is naturally believed to have originated from mountainous islands such as Kosrae and Pohnpei, where basalt was found and quarried and then imported to the lower lands and atolls of Ngartik and the Marshall and Gilbert Islands.

Significantly, basalt was also connected to a cosmic god of thunder and rain who was named Daukatau, meaning "Master of Katau", with whom the brothers Olosopa and Olosipa had dealings.

Daukatau is believed to be a proto-Oceanic title; it curiously does not affiliate well with Pacific etymologies, although Katau, the mythical homeland of the Pohnpeians, has been translated as "high place" or, likewise, "basalt peak".

The character of Daukatau is not far below the surface in the diffusion of this cult. In the Gilbert Islands, a thunder deity named Tabuariki—a chunk of basalt—was worshipped.

As basaltic rock was perceived as conducive to channelling supernatural powers and for domesticating the thunder god Daukatau, it is relevant that Nan Madol is built from basalt: it explains, a little, the extraordinary measures behind the quarrying and transport of this heavy mineral.

Belief in the magical properties of basalt was not confined to these shores; the material found home at other places far distant from these islands.

In the Cianjur Regency of Java, the site named Gunung Padang—"the mountain of light/seeing"—recently emerged from archival obscurity.

Built out of basalt, it is assembled upon a dormant volcano that rises sharply 2,900 feet [884 metres] above sea level.

The outer layers of this pyramid or platform structure are stacked with columnar basalt joints. The five mounting terraces at its summit are lightly picketed by the same columns.

Unlike at Nan Madol, the columns at Gunung Padang are staked in the ground quite randomly and appear like eldritch tombstones.

Significantly, the basalt columns were similarly connected to a thunder god who took the form of a dragon and was believed to have influence over baleful meteorological phenomena accordingly.

The more remote Easter Island also had a strong tradition with this igneous material from which the Moai statues were produced. It was named Ma'ea Matariki, Ma'ea meaning "stone" and Matariki meaning "to reference both the

ancestors and that star cluster [i.e., the Pleiades]".

As "living images" or mediums of this energy, the statues were said to come alive twice a year when the dead would visit the living.

The constructions of Nan Madol and Gunung Padang and the Moai of Easter Island are wrapped in analogous auras of mystery.

Nan Madol was built by a magic known as Mana-man, while the Moai were said to have been levitated by a force known as Mana. Gunung Padang is said to have been built paranormally in only one night.

Nandauwas, Gateway of the Dead

Rising steeply from the grid of silent waterways in the northeastern quarter of Nan Madol, towering stacks of boulders and columns bulwark the inner sanctuary of Nandauwas—the jewel in the crown of Nan Madol and the largest megalithic structure in Micronesia.

Nandauwas is majestic yet austere, enigmatic and elusively forbidding.

Along its blackened seaward-facing stretch it can appear vaguely ominous, an impression cast by its precipitous rise and unfamiliar outline which recalls the fear that the locals have of the place.



Opening portals of Nandauwas, showing prismatic basalt construction. (Photograph: Alistair Coombs)

Covering an area the size of a football pitch, Nandauwas was allegedly a mortuary complex that housed the royal tombs of the Saudeleur, although no confirmed archaeological remains of this type have ever been found there.

Set back from the water-immersed perimeter base of Nandauwas, towering piles of lava slabs form a surrounding wall up to 25 feet [7.6 metres] high, its corners finished in upswept peaks as if to mimic a boat or sea-going vessel.

As on Easter Island, spirit ships or soul boats were sacred items connected with ancestor worship, commemorating how the forefathers had arrived on these shores from their sinking homelands.

They also enabled travel over spirit paths to the realm of the afterlife on the horizon. On some islands, setting an embalmed body adrift in a boat-shaped coffin was practised.

Similar to ancient Egyptian "barges of the dead", boat tombs and burials have been found across the Pacific. Thus, a spirit ship may have been an eminent concept behind the design of Nandauwas.

Behind its elegantly sweeping western portal are rectangular courts enclosing a central subterranean tomb vaulted by hefty five-ton basalt girders.

Beneath an emerald glaze of jungle are other crypts, tunnels and courtyards and a ledge coursing along the interior of the outer walls, its purpose unspecified.

Sited behind the ruins of its massive breakwater that reaches out to the harbour's edge like giant arms, Nandauwas is built on an east-west axis and is offset more to the east from the rest of Nan Madol. Nandauwas was a ritual space, not an observatory.

Its portions are not constantly recurring, but there is a reason for its irregular orientation.

The star cluster most regarded by the ancient Pohnpeians was the Pleiades.

In fact, the attention given to this relatively unassuming cluster is quite astounding given the unobscured, unpolluted vistas of the sky at night.

The eastern wall of Nandauwas looks seaward over the harbour in a direction that not only targets Nan Madol's legendary Khanimweiso and Namkhet sunken archetypes but also the vanished motherland of Katau, whether Katau be identified with Kosrae or not.

Celestial phenomena enter this equation. Both the equinoxes and the June solstice are visible from the east-facing seaward wall of Nandauwas.

Perhaps more significant, marked between these solar stations at the time of Nan Madol's construction and use was the rising of the Pleiades.

These stars were not only revered for predicting a heavy harvest and for allowing plotting of the ritual calendar, but from the seaward wall of Nandauwas they suggestively appeared to rise from the realm of the dead and the sunken homeland on the southeastern horizon, providing a reason for why Nandauwas, offset from the rest of Nan Madol, would interlock with them.

Indeed, one is also inclined to think of the seven founding ancestor voyages responsible for settling Pohnpei, which arrived on the island from this direction, as reinforcing the Pleiades connection further.

As with the Moai of Easter Island, did the ancestors revisit and possess Nandauwas on certain eves?



Moai from the Rano Raraku quarry on Easter Island, the one on the right engraved with an image of a high-prowed boat, perhaps a spirit ship. (Photograph: Alistair Coombs)

As with Easter Island, the Pleiades connect implicitly with traditions of sunken legacies.

We are reminded that before the dramatic rise in sea levels following the last major glacial meltdown, Pohnpei was an unrecognisably larger volcanic landmass than it currently is.

For an island unblemished by marauding contact for millennia, might not Olosopa and Olosipa's account of an underwater city off the coast preserve the imprint of a distant cultural memory, for which Nan Madol was built as the resurrection?

About the Author:

Alistair Coombs is researching for a PhD on the shamanic and Buddhist relationship between fire, luminosity and consciousness, for which he has undertaken field research in Mongolia and Siberia.

He is also preparing a book on the Pleiades in global myth, ritual and cataclysm memory. His writings have appeared in *Darldore* and *New Dawn*. He can be contacted at alhohan27@gmail.com.

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Shadow of Nemesis:

The Sphinx and The Great Pyramid Part 2 of 2

In explorations of the Sphinx and pyramids on the Giza Plateau, key players have included members of the Edgar Cayce Foundation, keen to locate the so-called Hall of Records, and personnel linked with the US military-industrial complex since World War II.

by Jack Heart and Orage

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Website:

<http://www.VeteransToday.com>

Web page:

<http://tinyurl.com/nq2he6p>

As early as 1993, in reaction to *Mystery of the Sphinx*, Chief Inspector Hawass demonstrated that he would now be the sole arbiter of what was science in Egypt.

He expelled John Anthony West's crew from Giza and saw to it that they would never work there again. He later explained that their work was without "scientific basis" and fuelled by "American hallucinations".³⁹

In 2002, as the newly minted Secretary General of the Supreme Council of Antiquities (SCA), the now officially deified Dr Zahi Hawass pushed through a law forbidding excavation in Upper Egypt.

Ostensibly, all archaeological scientific enquiry in Egypt ceased right then and there and would remain that way till Hawass was finally brought down, seemingly for good, by the Egyptian Revolution of 2011.

During that almost decade-long period, nothing new of value would be published in mainstream Egyptology; nothing would move on the Giza Plateau, not even a lizard, without the approval of Hawass.

He would now be the sole proprietor of everything ancient Egyptian. Academia swooned and the mainstream media, led by Nat Geo, lauded him as a messianic figure in archaeology.

In 2008, Abdel Hamid Qutb, the right-hand man of Hawass in the SCA, was imprisoned for 10 years by the Egyptian court, which ordered him and two officials of Egypt's Ministry of Culture to pay fines of between LE 200,000 and LE 550,000.

Qutb was peddling millions of dollars worth of restoration contracts—contracts that could not have been awarded without the approval of Hawass.

Hawass was never questioned, even after publicly stating to the British Broadcasting Corporation's Arabic Service that Qutb did not have decision-making authority.

In his report "The Story of the Sphinx"⁴⁰, which he issued in April 2009, Hawass announced to the world:

"Under my direction, the Supreme Council of Antiquities is working to reduce the groundwater level around antiquities sites throughout Egypt". He boasted of success in developing "a system to prevent the Great Sphinx at Giza from getting its paws wet!"

Then Hawass set the hook on the more credulous amongst his audience:

"Perhaps the most important result of the groundwater project was that it enabled us to put to rest speculation about mysterious underground tunnels and chambers carved below the Sphinx by ancient civilizations'. For years, I have debated people like John Anthony West, Robert Bauval, and Graham Hancock, who say that survivors of a lost civilization 10,000 years ago left secrets buried beneath the Sphinx."

Hawass, ever the tormented scientist forced to contend with the impulses of superstitious savages, added that "their supporters have insisted that we should drill holes to try and find these hidden chambers".

Hawass then launched into his decree by stating that since there was no scientific basis for doing so, he has always been against drilling in the vicinity of the Sphinx—but in the course of the conservation effort it was necessary.

Hawass the visionary, vindicated by coincidental circumstances, now delivered his theme: "[W]e found that there were no hidden passages or chambers there."

Problems with Hawass's statement arose immediately for anyone bothering to familiarise themselves with the "system" he was using to keep the Sphinx "from getting its paws wet!"

According to a separate scientific report, well over a million-and-a-half gallons of water a day was being pumped from beneath the Giza Plateau.

There had to be a hollow chamber to tap into, a subterranean reservoir to drain, in order to collect that volume of water.

The same scientific report stated that 33 movement sensors to monitor the Sphinx for a month during pumping operations showed that it was stable.

The fact that the stability of the Sphinx was a concern indicates that the hollow chamber is almost certainly beneath it, and the authorities are well aware of it.

They knew there was an engineering danger of the foundation of the Sphinx being undermined by the draining operation.⁴¹

The low-energy seismic refraction readings done by Schoch and Dobecki back in 1991 found "clear evidence of a possible void or chamber under the left paw of the Sphinx"⁴², contrary to earlier findings that have thus far been admitted to.

The existence of a large rectangular chamber under the front paws of the Sphinx was confirmed in seismographic and radar tests run during May 1996 by the Schor Foundation in collaboration with Florida State University.

With the blessing of Hawass and the SCA, they would return in November 1997, February 1998 and September 1998.

The results of the Schor team's research have never been completely revealed due to contractual obligations with the SCA.

But in a 2000 meeting with Bauval at the Schor Foundation's Third Avenue headquarters in New York City, Dr Joseph Schor was adamant that his seismic radar survey around the Sphinx virtually confirms the existence of a subterranean network of passages and chambers.⁴³

On Art Bell's radio show back in July 1996, Hancock announced to the world that Schor had found no fewer than nine hollow chambers beneath the Sphinx, some of them containing metal objects.

Bauval would repeat this at The Incident conference in London in October, Towards the end of 1996, Schor had had his permit temporarily pulled, much to the chagrin of NBC television network which was planning to cover the opening of the chambers live in late 1996 or early 1997.

But by the end of the millennium, both Bauval and Hancock would be insisting that no such chambers had been found and they were publicly ridiculing anyone who suggested that they had been.⁴⁴

Schor (who died in 2013) was the founder and president of the Schor Foundation, a non-profit organisation dedicated to finding evidence of the lost Atlantean civilisation and its Hall of Records that Edgar Cayce, America's "Sleeping Prophet", had predicted would be found beneath the Sphinx.

He was a lifetime member of the Edgar Cayce Foundation, also known as the Association for Research and Enlightenment (ARE), and one of its principal donors.⁴⁵

With the blessing of the then Department of Antiquities and under the presidency of the seemingly implacable foe of the West, Gamal Abdel Nasser, the ARE was drilling holes beneath the Sphinx all the way back in 1957, operating through a woman named Marjorie Hansen.

It turned out that no less a power broker in modern Egyptology than Mark Lehner was scooped into the loving arms of the ARE in 1971 by Hugh Lynn Cayce, the son and heir of Edgar Cayce.



Dr Mark Lehner, photographed atop the Great Pyramid. (Source: © WGBH Educational Foundation, 1997)

In his biography, Hugh Lynn Cayce recounted how Lehner as a young radical from Berkeley showed up at one of his meditation classes, attempting to impress a girl.

Raised from boyhood by his parents on the prophecies of Edgar Cayce, Lehner instead impressed Hugh Lynn Cayce, who ended up adopting Lehner as a protege, putting him through university in Cairo and then placing him in the Nag Hammadi project for some postgraduate work.

When Lehner returned to Cairo in 1976, he was introduced to one of the ARE's fellow puppet-masters, Dr Lambert Dolphin.

Scientists and Spooks

In a June 1984 article in the *Jerusalem Post* with the self-explanatory title "Slouching towards Armageddon: Links with Evangelicals", author Louis Rapoport explained to the about to be co-opted Israelis:

"Lambert Dolphin heads a key section of the world's most massive research conglomerate, the Stanford Research Institute [SRI International], a \$200-million-a-year concern whose main clients are the US government and corporations like Bechtel..."

Rapoport was reporting on an incident in which an SRI team led by Dolphin, a fanatical Christian millennialist, had been picked up by the Jerusalem police while poking around in the Rabbinical Tunnel underneath the Dome of the Rock.

He was there at the behest of his equally fanatical Zionist Jewish colleagues from the Jerusalem Temple Foundation.

The SRI team had been smuggled into Israel replete with high-frequency seismic sounders, high-resolution resistivity electrodes and cart-mounted ground-penetrating radar.

Dolphin's team was given a stop-work order by the Jerusalem police and sent on its way.

The *Jerusalem Post* wasn't exaggerating, either. The word "spook" as a label for covert operatives may very well have been coined as an allusion to the SRI.

It was "they" that added remote viewing to America's Central Intelligence Agency's (CIA's) spy arsenal in the early 1970s.

At the same time as the SRI was introducing psychic front-men like Israeli Uri Geller and New York artist Ingo Swann to the boys in the trench coats, its radiophysics division was hunting for hidden chambers beneath the bedrock of Giza using ground-penetrating radar.

Ostensibly, the SRI project began in 1974, funded by the National Science Foundation and overseen in Egypt by the Ain Shams University in Cairo.



Dr Luis W. Alvarez in 1961 (Source: Wikimedia Commons)

But Ain Shams University together with the University of California, Berkeley, had overseen the Joint UAR-USA Pyramid Project, an earlier cooperative effort by the Egyptian and American governments, under the direction of Dr Luis W. Alvarez, to probe beneath the middle pyramid using cosmic rays.⁴⁶ ["UAR" refers to the short-lived United Arab Republic.]

Dr Alvarez, it will be recalled from part 4 of my "Black Sun Rising" series [see <http://tinyurl.com/qyckdna>], was in all probability the mysterious Commodore Alvarez, the man who accompanied Dr Heinz Schlicke and screened the questions during a briefing Schlicke gave to the US Department of the Navy after disembarking from the "captured" National Socialist U-234 submarine in May 1945.

As is also pointed out in part 4, according to a memo dated 28 December 1944, calculations by the chief metallurgist for Los Alamos, Eric Jette, showed that America would not have half the uranium required to achieve critical mass by 6 August 1945, the day they would drop the atomic bomb on Hiroshima.

They also lacked the infrared fuses necessary to detonate the plutonium bomb that they would drop on Nagasaki three days later.

Declassified intelligence memorandums in the National Archives put the infrared fuses, whose last-minute discovery is now credited to Alvarez, in the hands of Schlicke, who actually had to return to the submarine escorted by three American intelligence officers to get them.

There were other things on that submarine—things that would make triggering your brand new plutonium bomb seem trivial; things that some might say were the seeds of the breakaway civilisation.

Schlicke was the caretaker and Alvarez the heir, Schlicke was repatriated to Germany in 1946.

He would return to America to work on stealth technology under Operation *Paperclip* at the Office of Naval Research in Sands Point, New York.

Alvarez would go on to succeed his mentors Dr Arthur Compton and Dr Ernest Lawrence as America's most brilliant homegrown scientist. He would be awarded the Nobel Prize in Physics in 1968.

Like the "disintegrance" and "ex-disintegrance" rays in Richard S. Shaver's metaphorical science fiction tale, *I Remember Lemuria*, cosmic rays are a radiation that permeates the universe.

They penetrate the Earth's surface down to great depths, but just like Shaver's disintegrance rays they accumulate in everything they touch, causing the rays to dissipate the deeper they go.

Although not fully understood until 1962, cosmic rays were known to exist by the beginning of the 20th century.

In 1933, while still in his early 20s, Alvarez had been involved in crucial experiments with Compton, proving cosmic rays to have a predominantly positive charge.⁴⁷

By 1965, technology had advanced far enough to be able to measure the dissipation of the rays as they arrived in a digital "spark chamber" after passing through a solid object.

By properly calculating the fluctuations of the incoming rays, a facsimile of the solid's interior could be surmised.

Plans began two years in advance to examine the middle pyramid for hidden chambers. No expenses were spared for the exploration, scheduled to take place in June 1967.

The Smithsonian paid the travel expenses, and the US Atomic Energy Commission (AEC) footed the bill for the state-of-the-art detection equipment developed at Lawrence Berkeley National Laboratory.

Egypt threw in a building right next to the pyramids to be used as a lab, and the Department of Antiquities stumbled over itself cooperating.

But due to the Six-Day War, the project had to be put off until early 1968. Interestingly enough, outside of 1968 being the same year that Alvarez was awarded the Nobel Prize, of the 14 multinational scientists heading up the project only Ahmed Fakhry was an archaeologist.

Although over a million readings were taken, only "19 percent of the pyramid's volume" was probed and "no unexpected features were discernible".⁴⁸

Military-Industrial-Intelligence Connections

This was not the AEC's first foray into the subterranean abyss.

As I wrote in part 5 of my "Black Sun Rising" series [see <http://tinyurl.com/o78wwq8>], when the astonished US Third Army breached Germany's hypogeum citadel in Ohrdruf on 4 April 1945, Colonel Robert S. Allen, General George S. Patton's go-to intelligence officer, described a technologically impossible underground construction that confounded the Americans.

The man who built it, mostly with slave labour, Franz Xaver Dorsch—a survivor of the original Beer Hall Putsch and a founding member of the National Socialist Party—was never charged with war crimes at Nuremberg. He would continue on as a titan in an inexplicably surging German industry.

The company that Dorsch founded, Dorsch Gruppe, is currently Germany's largest independent planning and consulting company.

In April 2012, Dorsch Gruppe and its affiliated company Dorsch Qatar LLC "won" the contract to build the futuristic Lusail City on a piece of desert wasteland.

The brand new city will come complete with an absurdly ostentatious stadium so that Qatar can host the 2022 FIFA World Cup in style. In its CEO Statement, Dorsch Gruppe boasted to shareholders:

"The project, designed for 450,000 inhabitants, will cost approx. 45 billion US dollars."⁴⁹ This is around 12 per cent of the total construction volume of Germany in 2012.

By 17 April 1945, the AEC had inspected what lay beneath Ohrdruf, removed unspecified technical equipment and blown up the entrances.

Nobody would ever go down there again. American authorities classified all 1945 documents relating to Ohrdruf for a minimum of 100 years.⁵⁰ General Patton would be dead by the end of 1945.

John McCone and Stephen Bechtel, Sr, built ships together during World War II and were later investigated for war profiteering.

McCone became chairman of the AEC in 1958, where he remained until 1961 when President Kennedy tapped him to be the director of the CIA in the hope that he would check the growing nuclear threat from Israel.

Kennedy would not live to be reelected. During McCone's three-year tenure as AEC chairman, classified nuclear secrets were freely exchanged with Bechtel.

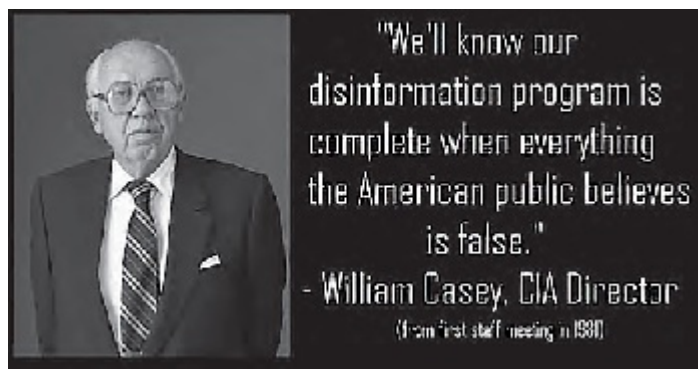
Four prominent AEC officials left their government positions to work for Bechtel, which was chosen in 1959 to build the first nuclear power plant in America (it would build many more).

Since then, some have labelled the AEC's relationship with Bechtel as "incestuous". Bechtel was closely affiliated with the CIA even before McCone became director.

Bechtel's financial adviser, John Simpson, had close relationships with the CIA's first civilian director, Alan Dulles, and his brother, John Foster Dulles, who was Secretary of State from 1953 to 1959.

Since then, CIA and Bechtel personnel have been largely interchangeable.⁵¹

Other Bechtel alumni who became CIA directors were Richard Helms under President Richard Nixon and William Casey under President Ronald Reagan.



William Casey (Source: <http://www.thesleuthjournal.com/cia-murder-inc/>)

As an officer in the Office of Strategic Services, the CIA's predecessor, Casey had been instrumental in transplanting National Socialism to America under the aegis of Operation *Paperclip* after World War II.

Aside from being responsible for the construction of most of the present-day American military's infrastructure, Bechtel⁵² specialises in underground construction.

Its most famous project was the tunnel beneath the English Channel connecting Great Britain to the European mainland.

Bechtel also built the NORAD [North American Aerospace Defense Command] base inside Cheyenne Mountain near Colorado Springs, along with untold above-top-secret bases like Area 51 at Groom Lake, Nevada.

It was Bechtel that built Saddam Hussein's underground bunker system when he was still America's ally.

"Dubya" was not yet even done with laying waste to Iraq when, from behind closed doors, he awarded Bechtel a no-bid contract estimated to be worth \$680 million to rebuild it.

How Bechtel collected on the other \$100 billion that the contract would eventually be worth is impossible to trace.

Bechtel family members frequently own the majority of shares in "other" companies such as the Fremont Group, a San Francisco-based investment corporation formerly known as Bechtel Investments.

The Fremont Group is partially owned by the bin Laden family, who also owns a massive Saudi Arabia-based construction company.

Unlike Dorsch Gruppe, Bechtel doesn't have to report to shareholders. It's the largest privately owned corporation in the world.

Riley Bechtel, a close personal friend of George W. Bush, runs it and it's owned by the Bechtel family, whose home base is in the San Francisco area.

The Bechtels are rumoured to run the Bohemian Grove, whose host, the Bohemian Club, is coincidentally also based in San Francisco.

In all likelihood, nobody but Riley Bechtel and a few close personal friends know what Bechtel is really up to.

But in 2014, under the name of Consolidated Nuclear Security, LLC (CNS), Bechtel, over the official objections of the then manager, Nuclear Production Partners, LLC, began its transitional takeover of the management of Pantex and Y-12, a manufacturing operation and a storage facility run by the National Nuclear Security Administration (NNSA).

The contract is estimated to be worth \$22.8 billion, and there is an option for CNS to manage the NNSA's Savannah River tritium operations.⁵³

The Sphinx Exploration Project

Dr Luis Alvarez always maintained that he had found nothing in 1968. But in an interview with the London *Times*, Dr Amr El Goneid of Ain Shams University let out that the pyramid was permeated with a mysterious energy that "defied all known laws of Physics".⁵⁴³

Alvarez vehemently denied it and accused the London *Times* of making the whole thing up.

In his writings, Dr Dolphin credited Dr Alvarez for "suggesting" that he and the SRI bring their resources to bear and develop the ground-penetrating radar technology necessary for the further exploration of the pyramids and subsurface Giza.

By early 1977, Dolphin and the SRI were doing the initial resistivity work on the bedrock of the Sphinx for Lehner and the ARE.

The ARE was convinced that the entrance to the Hall of Records would be found beneath the right front paw of the Sphinx, as Edgar Cayce had predicted. Sure enough, Dolphin located anomalies there.

He would publish those results in a brief report titled "Application of Modern Sensing Techniques to Egyptology".

But of the "much more thorough" resistivity work done in 1978, Dolphin said: "[N]one of us has been able to locate our logs and print outs..."^{54b}

It wasn't until 1999 that Dolphin would write a brief account of the 1978 expedition and post it to his website.

Hugh Lynn Cayce has a far more detailed and slightly different recollection of the expedition in his biography.

It would turn out that the ARE had shot six hours of sequences from the expedition in eight-millimetre colour film. Of course, "copies and full transcripts of the sound tapes" somehow turned up in Robert Bauval's hands along with Lehner's "personal account of what went on at Giza in 1978".^{54c}

Excerpts have been spliced together and appear at the beginning of Robert Bauval's film montage, *Searching for The Hall Of Records of Atlantis*.^{55a}

They verify much of Hugh Lynn Cayce's account and leave little room to doubt the rest. The 1978 expedition was financed by the ARE. Mark Lehner was the ARE's on-site supervisor, with Hugh Lynn Cayce personally overseeing the whole thing.

Holes were drilled and a camera lowered into the boreholes, all with the blessing of the Egyptian Antiquities Organisation.

In the film, a young Hawass and Lehner can be seen mugging for the cameras as Cayce narrates. At the base of the Sphinx, in an improvised desert lab, SRI technicians merrily operate what looks to be suitcase versions of today's laptops.

At one point, Hawass and Lehner are shown holding court over the drill in matching psychedelic sports jackets and early *Mod Squad* hairdos flirting with ARE co-eds. Hawass, in a preview of things to come, leans on the drill like he is James Dean.

The film excerpts end with Cayce lamenting that work was halted after drilling only one hole under the Sphinx's front paw:

"I'd understood that we would be able to drill from the other side and try to cross to pick up the anomaly that the instruments indicated was here."^{55b}

Everybody involved seems to have a different reason as to why the 1978 expedition was halted.

But an internal memorandum issued by the ARE stated that "toward the end of the season, serious problems began to develop between the SRI team and the other major patron who [was] contracted for the survey of the pyramids and who was, at the same time, the party heading the drilling operations".⁵⁶

The "other major patron" could only have been Recovery Systems International, a company founded by Dr Joseph Jahoda specifically for the purpose of drilling beneath the Sphinx.

Jahoda is just one more fabulously wealthy lifetime member of the ARE with important links to America's military-industrial complex.

His company, Astron Corporation, is a major contractor to the US Department of Defense and NASA [National Aeronautics and Space Administration]. It specialises in producing radio communication systems.

Sixty feet down, Jahoda's team struck granite. According to Jahoda, his team was halted from drilling further by the Egyptian military at gunpoint.

Granite is not indigenous to the Giza Plateau; the nearest source for it is Aswan, 600 miles to the south.

The only way that granite could be present beneath the Giza Plateau is if it had been used in the construction of a subterranean edifice.⁵⁷

Regardless, as would become his *modus operandi*, Hawass wasn't done yet.

He started new drilling operations, this time at the foot of the Sphinx Temple for the Institute of Underground Water of the Egyptian Ministry of Irrigation [*sic*].

Fifty-five feet down, he struck red granite. Hugh Lynn Cayce wanted to excavate the granite, but he would die in 1982.

In his biography, he said that he would need Hawass to advance in the Egyptian government in order to obtain the necessary permits to do it.

He felt that the best way to do this would be to move Hawass along in the ranks by getting him a doctorate from an Ivy League school. Cayce stated:

"I got him a scholarship at the University of Pennsylvania in Egyptology, to get his Ph.D. I got the scholarship through an ARE person who happened to be on the Fulbright scholarship board."

And of Mark Lehner and the ARCE [American Research Center in Egypt], he said: "I gave them a little money and Mark got attached."⁵⁸

At the turn of the 21st century, the ARE remained firmly entrenched on the Giza Plateau—as testified to by the Schor expeditions.

Dr Muhammad Bakr, the man whose job Hawass took in 1994, wasn't exaggerating when he said that the Giza Plateau was run by a mafia. In the past, the ARE, the ARCE and the SCA were all fiercely loyal to each other.

After Hugh Lynn Cayce died, no one talked to the media except Hawass when he was spewing the officially sanctioned propaganda. But someone did break the *omerta*.

Thomas Danley, an acoustical engineer and consultant for NASA, as part of the 1996 Schor expedition was doing acoustical experiments in the Great Pyramid that were being recorded by a film crew led by American documentary producer Boris Said. (Said had produced *Mystery of the Sphinx* in 1993.)

The SCA had given them permission to stay inside the pyramid for four days. Danley took the opportunity to climb up into Davison's Chamber and have a look.

He couldn't help but notice that Hawass had extended an old excavation by Giovanni Battista Caviglia, who had already tunnelled 10 feet, some 30 feet down on a course to intersect Rudolf Gantenbrink's door.

He made the news public on both the Internet and radio. When questioned by the press about it in his office in July 1997, Hawass produced a statement signed by Said that he had seen no tunnel.

But by early 1998, Said was doing radio interviews admitting that there *is* a tunnel and claiming that he sees no harm in the SCA's burrowing around the world's most important structure in secret.

After all, the pyramids belong to Egypt. Said added: "They [the Egyptians] are tunnelling all over the plateau."⁵⁹

About the Authors:

- Jack Heart is a columnist for VeteransToday.com. For biographical details and postings, go to: <http://tinyurl.com/qys9n5t>.

Visit his blog at <http://www.jackheart2014.blogspot.com>

- Orage is a researcher and expert in pattern recognition who assists Jack Heart in his literary endeavours. Visit his blog at <http://tinyurl.com/p5qy3vu>

Editor's Note:

This article is edited from "Shadow of Nemesis 3: Tales of Zahi Hawass, Chaigidiel & Satharial", posted at VeteransToday.com on 12 August 2015; go to the web page <http://tinyurl.com/nq2he6p>.

To see part 1 of Jack Heart's article, "Shadow of Nemesis: Pyramids of Giza and Lies of Empire", posted at VeteransToday.com on 3 August 2015, go to <http://tinyurl.com/oxymdvm>

To see part 2, posted on 11 August 2015 and published in NEXUS 22/06, go to <http://tinyurl.com/qzzj9vo>

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A LOST CITY IN SPAIN?

by Steven A. Arts

© November 2015

It has been speculated for well over 100 years that there is a still lost city in the southwestern part of Spain, on or near the Guadalquivir River. That lost city is known by several names. The ancient Greeks called it Tartessos, the Romans knew it as Tartessus, and the ancient Hebrews of the Bible referred to it as Tarshish.

There is nothing quite so invigorating and interesting as the story of a long-lost mysterious city. Stories from both archaeology and fiction are replete with such wondrous tales of exploration. It brings to mind more modern fictional stories of archaeologist Indiana Jones, played by actor Harrison Ford.

Tartessos was said to be located to the west of the Pillars of Heracles (Hercules to the ancient Greeks), beyond what is now called the Strait of Gibraltar and close to the mouth of the Guadalquivir River in the southwest of Spain.

This land, the Iberian Peninsula, has had many conquerors, including the Celts, Tartessians, Phoenicians, Carthaginians, Greeks, Romans, Visigoths, Moors, and the Spanish and Portuguese themselves.



Southern Spain showing the Tartessos cultural area. (Source: Wikipedia)

A German archaeologist by the name of Adolf Schulten became interested in Tartessos and was convinced that it and the legendary lost city of Atlantis were one and the same place. He conducted an expedition in the early 1920s to the Guadalquivir River to try to find Tartessos. Schulten was an historian and archaeologist from Elberfeld, Germany, in the Rhine region. He even wrote a book about Tartessos, which is only available in German and Spanish.

Ancient Miners and Mariners

The Tartessians, the people of Tartessos, mined ores in the nearby Sierra Morena mountain range. Later on, the seafaring Phoenicians from the Eastern Mediterranean Sea built a city that they called Gades (now Cadiz) at the mouth of the Guadalquivir River. It is thought that Gades was built not only to extend Phoenician trading to what is now the British Isles, but to take advantage of trade with wealthy Tartessos.

In the Old Testament of the Bible, the city is mentioned quite often. In 2 Chronicles 9:21, it is written: "For the king's ships went to Tarshish with the servants of Hiram; every three years once came the ships of Tarshish bringing gold and silver, ivory, and apes and peacocks."

The name Hiram refers to the world-renowned King Hiram of Tyre. Most readers of the Bible would think of Hiram as a great Phoenician king, but some scholars think that Hiram was the king's title, not a personal name. Tyre was a city in Phoenicia, now modern Lebanon.

Needless to say, Schulten never did find the lost city of Tartessos. It is completely possible that when Tartessos, or Tarshish, was destroyed, this influenced the legend of Atlantis.

We have already established that Tartessos and Tarshish are more than likely the same city. The latter-named city is mentioned in the Old Testament. Isaiah 23:1 says: "The burden of Tyre. Howl, ye ships of Tarshish; for it is laid waste, so that there is no house, no entering in: from the land of Chittim it is revealed to them."

Chittim, or Kittim as it is sometimes spelled, is the biblical name for a settlement on the west coast of the island of Cyprus in the Eastern Mediterranean Sea. "The burden of Tyre" ties in Tarshish with the Phoenician city of Tyre, perhaps as financial or trading partners.

Genesis 10:4 gives us a biblical familial perspective on Tarshish or Tartessos: "And the sons of Javan; Elishah, and Tarshish, Kittim and Dodanim..." This somehow ties in Tarshish with the Cypriot Greeks. Javan refers to Caucasians or Europeans, so Tarshish might be located somewhere in Europe, such as in southwestern Spain.

As to whatever or wherever Tarshish was, 1 Kings 10:22 says: "For the king had at sea a navy of Tharshish with the navy of Hiram: once three years came the navy of Tharshish, bringing gold, and silver, ivory, and apes, and peacocks."

These are perhaps references to Tarshish's Western Mediterranean Sea location, close to West Africa. Tharshish is merely a variant spelling of Tarshish.

That the Phoenician and Carthaginian ships could travel far from sight of land has been proven. Carthaginian coins have been found far from the shores of Africa and Europe in the Azores islands—proof that ancient mariners were not restricted merely to knowing coastal areas, as has long been thought.

The scientific community as a whole has long underestimated the technological achievements of ancient civilisations.

There is further mention of silver in the Bible in Jeremiah 10:9: "Silver spread into plates is brought from Tarshish, and gold from Uphaz, the work of the workman, and of the hands of the founder; blue and purple is their clothing; they are all the work of cunning men."

In 2 Chronicles 20:36 is this mention: "And he joined himself with him to make ships to go to Tarshish: and they made the ships at Eziongeber."

Ezion-Geber (Eziongeber) was an ancient city located on the Gulf of Aqaba, which is itself an arm of the Red Sea. Look at a map of that area: ships built there would have had to have been transported to the Mediterranean Sea overland through ancient Israel, or to have circumnavigated the entire continent of Africa, for the Suez Canal was far into the future.

Perhaps that is why the ships of Tarshish, at least on their maiden voyages, took so long to reach her European and West African ports of call. There is literary proof that the Phoenicians sailed from this same Ezion-Geber, around Africa, through the Mediterranean Sea and back to Phoenicia in ancient times.

In 2 Chronicles 20:37 it is written: "Then Eliezer the son of Dodovah of Mareshah prophesied against Jehoshephat saying, Because thou hast joined thyself with Ahaziah, the LORD hath broken thy works. And the ships were broken, that they were not able to go to Tarshish." Again, this is an allusion to a naval disaster of some sort for Tarshish.

The area where Tarshish was supposedly located, near the mouth of the Guadalquivir River in southwestern Spain, has a long and ancient history. A late Bronze Age hoard was discovered in 1923 off the coast of the city of Huelva. An Irish lunate spearhead and some Cypriot finds were among many discoveries.

That there were Irish finds in this area is not so unexpected. There is an ancient tradition in Ireland that the island was invaded and settled by a tribe from northern Spain known as the Milesians.

In the area of northern Brittany lived a Celtic tribe called the Oestrymians. This tribe was supposedly associated with the Tartessians and was said to have helped those people mine the Isles of Scilly, off the tip of Cornwall. That Celtic tribes as far apart as the Milesians of northern Spain and then Ireland and the Oestrymians of Brittany traded with one another is not surprising.

It was often thought that the Phoenicians themselves mined the Isles of Scilly. However, the latest information tells us that the Tartessians, with the help of the local Oestrymians, actually mined the islands for tin.

It makes sense because, in historically recorded times, none other than Julius Caesar himself recorded how the Veneti, a Gaulish Celtic tribe in the same area of Brittany, were accomplished mariners. It is perhaps possible that the Oestrymians and the Veneti were one and the same tribe or closely related to one another.

There is a direct tie-in between the Tartessians and the Celtic tribes of the Iberian Peninsula itself. That there were so-called Celtic Iberian tribes in what is now Spain and Portugal has long been known.

Celtic Iberian Deities

Bits and pieces of artefacts relating to various Celtic deities have been found. One such deity, Endovelicus, was supposedly worshipped in ancient times over a large area of what is now southwestern Spain and Portugal.

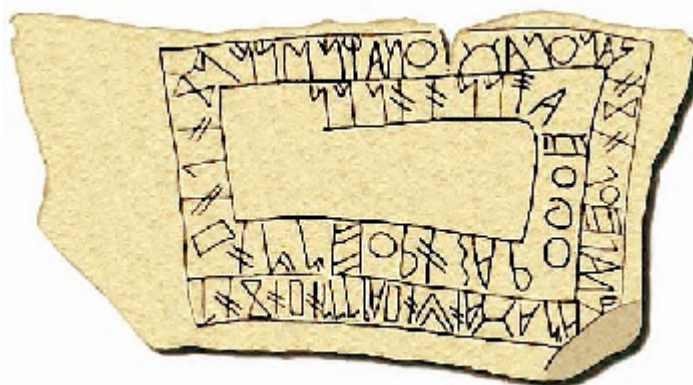
An oracular deity, Endovelicus was associated with the underworld or otherworld, and several temples and sanctuaries were dedicated to him, including ones at Sao Miguel da Mota in Alentejo and in Alandroal in what is now Portugal. Endovelicus was also associated with the boar, which was an extremely important animal to the ancient Celts and figures prominently in surviving Celtic tales. Laurel and pine were also linked with this god, which represented immortality.

It has been speculated that Endovelicus was connected with several other Celtic deities, such as Succelos (Dis Pater) and Cernunnos; the latter being a horned or antlered god of fertility and plenty.

The Greek geographer-historian Strabo, in reporting on the travels of the lyric poet Anacreon, linked Tartessos with the popular demigod Heracles. The first king of Tartessos was supposed to have been named Habis, and he made laws to unite the people. The Tartessians also had close ties with Mainake, the lost Greek colony in southern Iberia.

Recent Expeditions

There is a large marshy area near the mouth of the Guadalquivir called Donana National Park, where the original site of the city of Tartessos might be found. During the Roman occupation period there was a large lake there, called Lacus Ligustinus. It was originally thought to be far too marshy to have ever been inhabited by humans. That view is changing.



The Tartessian Fonte Velha inscription (Bensafrim, Lagos, Portugal). (Source: Wikipedia)

Reports that the site of Tartessos might be in these marshes inspired two expeditions to the area in July 2006 and in August-September 2009: the former lasted only five days, and the latter went on for five weeks [see <http://tinyurl.com/oy8zmb5> for more details].

Researchers found pottery sherds from the Neolithic, Copper and Bronze ages as well as from the seventh to 13th centuries CE during the time of the Muslim occupation of southern Spain. Two clay statuettes from the Roman period were found as well.

Geological drillings to depths up to 18 metres showed a sandy layer within the clay subsoil. The scientists said that this showed that an event such as a storm flood or a tsunami had occurred during the third millennium BCE.

An aerial survey of the park showed rectangular and circular forms that might be part of ancient Tartessos. Rocks used for building were found there during the July 2006 expedition.

One day we may find out if Tartessos really did exist and where it is located. We may never know, however, if the destruction of Tartessos was the template for the fascinating legend of the lost city and continent of Atlantis.

About the Author:

Steven A. Arts is an author based in Iowa, USA. His articles have been published in diverse magazines including *Iowa History Journal*, *AAA Traveler*, *Home and Away*, *Rural Electric Nebraskan* and many others. He is the author of *Mystery Airships in the Sky* (PublishAmerica, 2002). His article "Airship Hysteria in mid-1890s America" was published in NEXUS vol. 20, no. 5, August-September 2013. He can be contacted by email at arts.steven@yahoo.com.

Editor's Note:

The biblical quotes in this article are sourced from the King James Bible via BibleHub.com

BOOKS

Reviewed by Ruth Parnell

FATHER EARTH

by Olof Smit
Olof Smit, 2015
(first published in Dutch in 2012)
ISBN 978-9-078070-77-1 (243pp tpb)
Available: www.frontierworld.nl

An opportunity in 1992 led to filmmaker Olof Smit living in the Amazonian rainforest of Suriname, learning about traditional medicine from a gifted woman, "Mama", whose ancestors arrived 300 years before as slaves from West Africa.

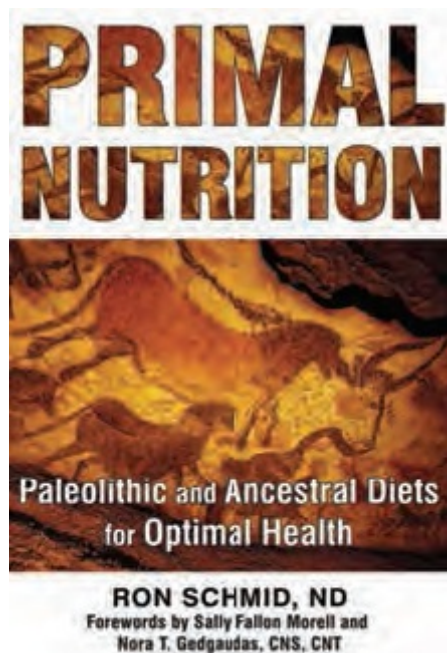
Smit stayed there for a decade or more, also spending time in the capital as well as in Trinidad, and he recounts many interesting historical asides.

From Mama, he developed his skills as a herbalist, even coming up with a cure for malaria and dengue fever.

The experience gave him the impetus to spread awareness of the treasury of curative native plants and the need to protect their rainforest habitats.

Smit's learning involved joining with nature's guiding forces, accessing the soul in diagnosing and treating ill health, and working with spirit guides to remove "curses"— with positive outcomes all round.

Smit now offers a spiritual healing service with an emphasis on identifying and removing blockages and breaking generational curses (see his website www.earthfather.eu). His story is, well, spellbinding!



PRIMAL NUTRITION

by Ron Schmid, ND
Healing Arts Press, VT, USA, 2015,

5th edition (first published in 1987)
ISBN 978-1-62055-519-4 (365pp tpb)
Available: www.drjons.com
www.HealingArtsPress.com

Confused about the paleo diet fad? Dr Ron Schmid, now a retired naturopathic physician, has a broader perspective on what has worked well for traditional cultures for millennia.

He's informed by the work of Dr Weston A. Price, a dentist who studied indigenous people's good health and disease resistance with their diets of whole, natural foods including meat from wild game and grass-fed domestic animals, seafood, raw-milk dairy products and, to a lesser extent, whole grains.

As Schmid explains, modern diets with processed foods are at odds with ancestral diets. In some traditions, certain nutrient-dense foods such as seafood, liver and raw milk products had a sacred quality with rituals that revolved around them, reinforcing their importance for health and immunity.

And yet when indigenous cultures shunned their traditional foods, ill health resulted. Today, the modern diet is so often industrialised and denatured, so Schmid's dietary advice is particularly relevant.

We have to be increasingly aware of the source of our foods: for example, seafoods from Pacific Ocean waters affected by Fukushima nuclear radiation are to be avoided.

In this substantially updated fifth edition, originally titled *Traditional Foods Are Your Best Medicine*, Schmid reaffirms the role of ancestral diets in overcoming ill health, chronic disease and degenerative conditions.

He has a wealth of advice supported by scientific studies to help us tailor-make our diets to our specific needs to support our health and longevity.

THEY EXIST

by Piers Morris
Grosvenor House UK, 2015
ISBN 978-1-78148-914-7 (256pp pb)
Available: Amazon.co.uk

English lawyer Piers Morris concludes that the extraterrestrial presence on Earth is responsible for the negative path that we're on.

In *They Exist*, Morris reviews significant highlights in the recent literature on UFOs and ETs, and then examines writings that consider the ancient past, the rise of humanity and the consequences of ET visitation.

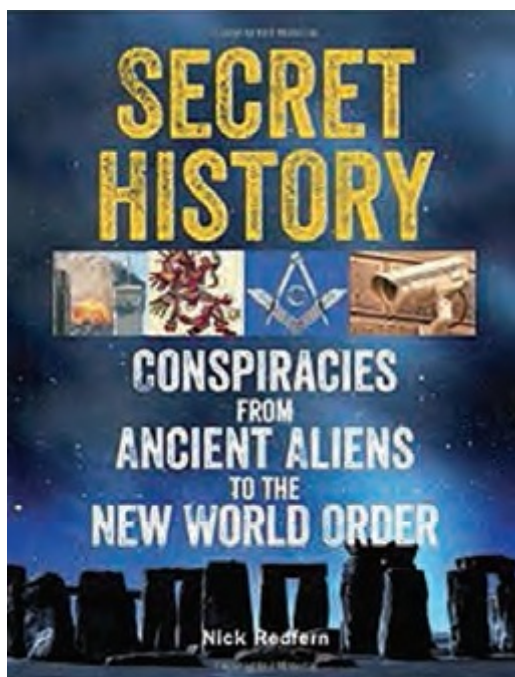
Drawing on the work of many researchers, Morris discusses UFOs and how they might travel through space, key incidents on a "Roswell" scale, the Project Serpo visit to another star system, exopolitical attitudes on ET life, black budgets and government secrecy.

He investigates contactee and abduction experiences, genetic harvesting and hybridisation, time travel, alien viruses, the global ruling elite, the prospect of planetary destruction and the possibility of positive changes for a New Earth.

He analyses four perspectives on ET presence: intruder, manipulator, helper and watcher, evidence for the first two being the strongest, he says.

Morris analyses the body of work on alien and even reptilian origins of humanity, intelligent design theory, universal consciousness and parallel universes, DNA as an ET creation, ancient cataclysms, past ET-enabled civilisations and more.

He suggests we need to become aware of our universal spiritual heritage and break the elites' chains that bind us if we're going to make evolutionary progress. (For more, see www.piersmorris.com.)



SECRET HISTORY

by Nick Redfern

Visible Ink Press, MI, USA, 2015

ISBN 978-1-57859-479-5 (440pp tpb)

Available:

www.visibleinkpress.com

www.turnaround-uk.com

The unpalatable truth about our ancient and modern history should be accessible to us rather than being manipulated and buried for any number of nefarious reasons, says Nick Redfern (22/06, 21/06, etc.).

Here he tackles hidden history under three broad headings: Ancient Aliens, Conspiracies and the New World Order, the general "conspiracy" theme running through all three.

He aims to present known facts and commentaries, and then sum up, often concluding that the jury is still out and probably always will be.

His coverage takes in alien parallels with the Ten Commandments, the Ark of the Covenant as a deadly weapon, the Anunnaki as the real ancient aliens, and the Face on Mars as evidence of off-planet mega-building.

Redfern lifts the lid on the Lincoln and JFK assassinations, the Tunguska event as an early Roswell incident, Operation *Paperclip* as a Faustian pact, MKUltra mind control and Manchurian candidates, the *Challenger* disaster, Area 51 cosmic conspiracies, crop circle messages, psy spying, chemtrails and more.

He delves into 9/11 anomalies, curious deaths of microbiologists, Big Brother surveillance, and the mystery of flight MH370 (although "debris" was found after this book went to press).

Anyone who's concerned that history is written by the victors will gain much from Nick Redfern's book.

WHEN THE GODS RETURN

by Jack Barranger

The Book Tree, San Diego, USA, 2014

ISBN 978-1-58509-143-0 (112pp pb)

Available: www.thebooktree.com

Space aliens are here, but they haven't yet announced it officially. If and when they do, we'd better be prepared for what they may say, for we could be subjected to the same treatment they dished out when they were on Earth in ancient times.

A retired college professor who taught English and critical thinking and has a background in theology, Jack

Barranger had already done extensive research into evidence for ancient aliens for his *Past Shock* books that examine the origin and impact of religion.

He surmises that the "gods" of Sumeria and the Jehovah of the Hebrews were ETs who imposed religious worship on the people, demanded obedience while being deceptive, and threatened cruel punishment for noncompliance.

Barranger rejects the notion that ETs are our "space brothers", ready to step in to save humanity from some calamity about to befall the planet. Indeed, he says, these overlord aliens watched the Great Flood unfold from the safety of their spaceships.

These overlords tampered with our DNA, making us smart enough to work but "stupid enough not to rebel"; the result was a "slave chip".

For millennia, individuals and societies have been enslaved by this powerful programming, he explains, and we must deactivate it if we're to progress beyond conflict into true freedom.



THE SOUL OF ANCIENT EGYPT

by Robert Bauval and Ahmed Osman
Bear & Company, Rochester, USA, 2015
ISBN 978-1-59143-186-2 (234pp tpb)
Available: Amazon.com
www.BearandCompanyBooks.com

In a new collaboration following their book *Breaking the Mirror of Heaven* (20/01), Robert Bauval and Ahmed Osman, both Egyptian born, call for a return to the tenets that held ancient Egyptian civilisation intact for 3,000 years.

These were based on "living in *maat*", in spiritual harmony and physical balance with the heavens and Earth; it was a natural "religion" that reflected the rhythms above and below.

The Nile was a barometer, its annual flooding heralded in the stars and fertilising the land. Fast forward, and that sacred influence was impeded by the construction of dams and a lake; the fertility of the land fell into decline.

The authors cover the rise of early Christianity and the Copts, the Islamisation of Egypt in a Muslim caliphate in the seventh century, Napoleon's failed incursion, and colonisation by foreign powers—with a fair few Egyptian rulers leading their country towards bankruptcy.

They then examine the rise of the Muslim Brotherhood and key events surrounding the rules of presidents from

Nasser, Sadat and Mubarak to Morsi and el-Sisi. They point to the huge challenges that lie ahead with overpopulation, environmental degradation, social and cultural problems, and economic woes.

But Bauval and Osman see a way beyond 2,000 years of suppression to restore the ancient balance between order and justice. They urge Egyptians to connect with their original soul identity and the golden legacy that's all around them.

ENGAGING THE EXTRATERRESTRIALS

by Noel Huntley

Xlibris, USA, 2nd edition, 2015

ISBN 978-1-4990-7603-5 (281pp tpb)

Available: bookstore.xlibris.com

Amazon.com

It helps to know something of higher dimensional physics, DNA and the history of ET interactions with Earth to appreciate Dr Noel Huntley's book.

It also helps to have an open mind, as Huntley includes information from channelled sources, often from Ashayana Deane whose *Voyagers Volume II* transmits knowledge of "Keylontic morphogenetic science" from the so-called Guardians.

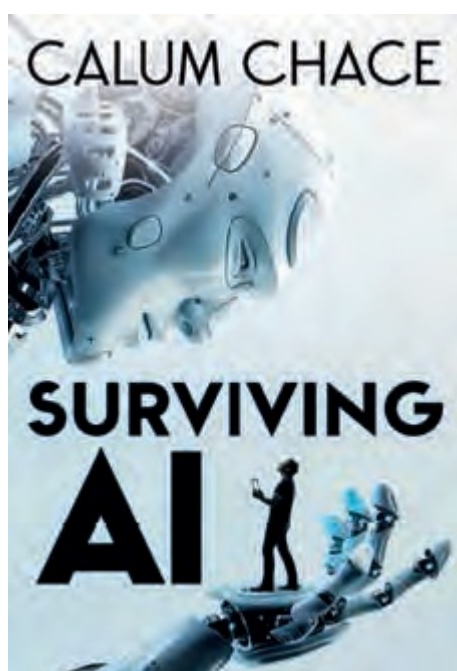
It would seem that the Guardians have humanity's best interests at heart, but the same can't be said of other alien races who operate in various dimensions and seem intent on taking control of humanity and Earth.

Huntley is a physicist with PhDs in experimental psychology and parapsychology. He's written many books on consciousness, religion and the paranormal (see 18/04).

Here, his topics on the ET presence touch on the Bermuda Triangle and wormhole vortices, dinosaur extinction, the Philadelphia Experiment, the Ark of the Covenant, the fall of Atlantis, the real Jesus Christ and the Inner Earth.

There are revelations about the Phantom Matrix, crop circles, HAARP, and the Anunnaki's Nibiru diodic crystal planted below the future site of Stonehenge as an Earth-control mechanism.

Plus, 9/11 anomalies in the context of a rogue ET faction's advanced sonic scalar weaponry, and stellar activation cycles, the year 2017 earmarked as significant for humans to assert our independent destiny.



SURVIVING AI

by Calum Chace
Three Cs Publishing, UK, 2015
ISBN 978-0-9932116-2-1 (185pp pb)
Available: Amazon.co.uk

Many gadgets that are part of our lives have a component of artificial intelligence (AI) that we take for granted.

Add into the mix the exponential development of AI and associated digital disruption, and we have a huge challenge—especially if a "technological singularity" is reached where machine or software intelligence develops self-awareness.

Surviving AI is an easy-to-read assessment of the promises and perils of artificial intelligence, written by Calum Chace who has 30 years experience as a chairman, coach and consultant.

He reviews the history of AI, explaining the difference between artificial narrow intelligence and artificial general intelligence (AGI), an AI that can effect any cognitive function that a human can.

He gives reasons to doubt that we'll be able to create conscious machines: human brains don't run the same kind of algorithms as computers; we don't have a comprehensive theory of the mind; and consciousness may arise from an immaterial soul.

However, he predicts that creating AGI is only a matter of time. Whether or not this will lead to artificial superintelligence (ASI) and whether this will be beneficial are vexing questions.

Chace thinks we should already be taking steps towards developing friendly, safe AI by constraining AGI's progress and motivations. (For more thoughtful asides, visit his website www.pandoras-brain.com.)



GENESIS FOR THE SPACE RACE

by John B. Leith
via Robyn C. Andrews
Timestream Pictures, USA, 2015
ISBN 978-0-692449-66-0 (361pp tpb)
Available: Amazon.com
www.timestreampictures.com

John Leith's book has undergone several incarnations (see 14/04), but his version is authorised by his friends, including Robyn Andrews.

During World War II, Leith was an agent of the US Office of Strategic Services (OSS), the forerunner of the Central Intelligence Agency (CIA), and led special forces teams on 62 missions behind German lines, but his war record had to remain secret till after his death (he died in 1998).

With assistance from CIA and other contacts as well as a trusted research colleague, Leith assembled material about the Earth's recent history, her inner-world inhabitants and extraterrestrial visitors that has eluded other investigators. He had access to special archives and top-level military-intelligence personnel.

Leith outlines the development by Jonathan E. Caldwell of the so-called "round-wing" aircraft that the US military advanced to become an antigravity craft.

The key R&D location was in a hidden valley in British Columbia, a joint project of the Americans, Canadians and British with assistance from Venusians.

They had competition from the Germans, though, who set up a subterranean New Germany that hundreds of thousands of countrymen escaped to before the end of World War II.

There's also coverage of US Admiral Richard Byrd's encounters in Antarctica, and testimony from inner-Earth beings. This book reveals the space race in a wholly different light.

HYBRIDS

by Tanis Helliwell

Wayshower Enterprises, Canada, 2015

ISBN 978-1-987831-01-6 (180pp pb)

Available: www.iitransform.com

Who'd have thought that many humans are hybrid beings (and not as a result of alien abductions). According to Tanis Helliwell and her long-time collaborator Lloyd the Leprechaun (see *Summer with the Leprechauns*, 5/03), many kinds of hybrids are evolving on Earth.

Their non-human sentient partners seek incarnation within the human realm, asking for permission from Cosmic Intelligence as part of the Divine Plan.

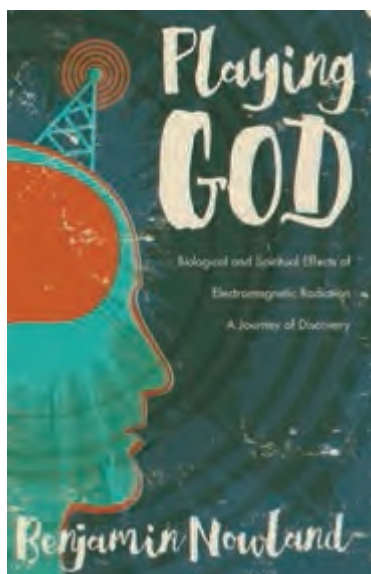
Helliwell, a psychotherapist, founded the International Institute for Transformation in Canada and has conducted workshops on elementals and hybrids for 20 years.

In her book, she describes the most common types of hybrids she's come across and includes personal testimony. She identifies three main categories:

Earth elementals or nature spirits such as leprechauns, brownies, pixies, goblins, elves and tree devas; human cousins such as inner earthlings, giants, merpersons, dolphins and whales; and star beings including angels, els (conscious creator beings), Horuses, Pans, dragons, bees, Anunnakis, centaurs and others.

At the end of each category, Helliwell provides helpful hints to assist people who do realise that they have a hybrid evolution, and also includes a questionnaire to assist people in working out what kind of hybrid they might be.

Each hybrid type brings different gifts to this work of co-creation, helping to fulfil humans' destiny to be worthy guardians of Earth.



PLAYING GOD

by Benjamin Nowland
Dharam House/Vivid Publishing,
Fremantle, WA, Australia, 2015
ISBN 978-1-925341-24-9 (177pp tpb)
Available: www.dharamhouse.com
www.vividpublishing.com.au

A world-travelling Australian engineer, health practitioner and yoga teacher, Benjamin Nowland was struck down with radiation pollution sickness when he moved to Sydney in mid-2013.

Electromagnetic field (EMF) emissions from the antenna array atop a building near his apartment triggered his illness.

During the many months of his ordeal, Nowland kept copious notes and took many EMF measurements in documenting what he calls his "Sydney EMF Experiment".

He tested various anti-EMF products, some of which only made matters worse. He had become electrohypersensitive—a condition estimated to affect 3-5 per cent of people—and extrasensitive to chemical assault.

So, having lost his health, his spiritual/intuitive connection and his freedom, he became a "radiation refugee", leaving the city for a zero-EMF rural retreat.

Even then, it took a year or more for him to recover his health and inner peace. These days, Nowland through his company Dharam House teaches practical strategies in his EMF Essentials talks and consultations.

In *Playing God*, Nowland includes considerable scientific and technical information and gives sage advice on radiation first aid, explaining how to detoxify, recuperate and re-integrate.

Noting that our DNA is a fractal antenna susceptible to damage from EMFs, he suggests survival strategies from switching off Wi-Fi to refusing smart meters. He urges us to stand up against telco tower proliferation and educate our fellow citizens.

THE GLOBALIZATION OF WAR

by Michel Chossudovsky
Global Research, Montreal, 2015
ISBN 978-0-9737147-6-0 (219pp tpb)
Available: www.globalresearch.ca

All the wars that the USA has been involved in since World War II have something in common: they're a continuation of Truman Doctrine foreign policy, and they tend to come with the threat of pre-emptive nuclear strike.

They reflect a military design that's got little to do with humanitarian purposes and everything to do with global corporate expansion and grabbing natural resources.

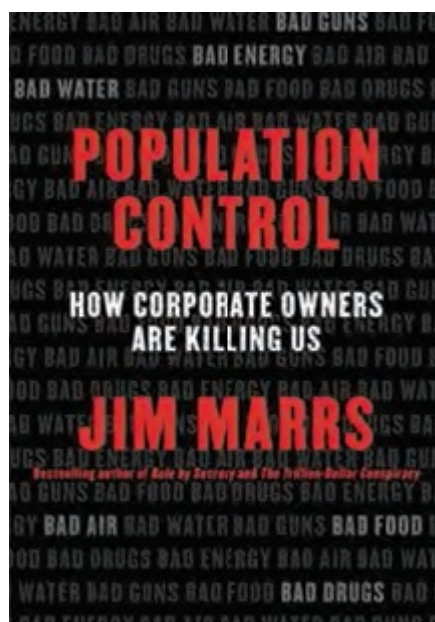
Professor Michel Chossudovsky, Director of the Centre for Research on Globalization in Montreal, Canada, explains that America is perpetuating a "Long War" aimed at world conquest, although it relies on an alliance of 28 NATO member states to achieve its aims.

The Globalization of War is a collection of essays published between 1999 and 2014 and updated for this book.

There's an overview of America's wars from the Cold War to conflicts in Iraq and Syria against ISIS (which Chossudovsky maintains has covert backing from intelligence agencies in the USA, UK, Israel, Pakistan and Saudi Arabia).

There's a 2010 interview with Cuba's Fidel Castro on nuclear war and humanity's future, and analysis of the *modus operandi* of US military-intelligence incursions, regime change and covert terrorist support in various countries.

Chossudovsky looks to "breaking the American inquisition" by encouraging grassroots awareness that the global war on terrorism is a fabrication and that the so-called "clash of civilisations" is based on strategic and economic objectives.



POPULATION CONTROL

by Jim Marrs

William Morrow, New York, 2015

ISBN 978-0-06-235989-6 (376pp hc)

Available: Amazon.com

Distinguished journalist and author Jim Marrs presents evidence that the global elite plans to reduce the world's population to just 500 million.

Here, Marrs gives evidence for the stranglehold that the "GOD Syndicate" has over the global populace with its guns, oil and drugs (legal and illegal).

He describes the deadly nature of things that we've taken as safe givens: medicine, food, water and air.

The corporatists, backed by media and PR machines, are ensuring that we're cornered despite our best attempts to reject dangerous vaccinations, carcinogenic sweeteners, poisonous GMOs and herbicides, and polluted air and water from sources ranging from the personal to the military.

Marrs goes on to say that the police state enforces our acceptance of all these deadly products and our compromised environment.

Massive surveillance of our communications affects even those with nothing to hide, and somehow it doesn't target the very terrorists whom it was designed to thwart.

Police forces are becoming increasingly militarised, wrongful shootings, arrests and asset forfeitures are becoming the norm, and the citizenry is being forced to live in fear—and with the threat of economic collapse and martial law.

Global corporate masters are guiding us to a "culture of death", whether from deadly drugs or violent entertainment.

Marrs stresses how important it is to exercise critical thinking, demand effective democracy by working upwards through local governments, and make meaningful changes at a personal level. We need to create a new "culture of life" to counter the depopulation agenda, says Marrs in his hard-hitting book.

**THE EU:
A Corporatist Racket**

by David Barnby

Orinoco Standard, UK, 2015

ISBN 978-0-9569815-8-5 (204 pp tpb)

Available: www.juneypress.com

www.books2buybooks2write.co.uk

When British Foreign and Commonwealth Office records were released in 2003 under the 30-year rule, author and publisher David Barnby set to work on a study that resulted in his 2006 CD titled *Shoehorned into the EU*, which explains how Prime Minister Edward Heath duped Parliament and the public into joining the European Economic Community (EEC) in 1973.

Barnby has adapted the CD for this book and included additional material gleaned from extensive further research.

Barnby explores the evolution of the EEC from its murmurings during World War II, with its backers from Winston Churchill to Bilderberg founder Joseph Retinger and soon a host of elite players under the banner of the American Committee for a United Europe.

He exposes Heath's PR and political tactics that resulted in the British people giving away their constitutional rights when the UK joined what was supposed to be a trading community in 1973.

The nonbinding 1975 referendum was a farce, the "yes" vote rigged, he believes. Transfers of power have been enacted without popular consent in various treaties in succeeding years.

A "corporatist racket" is behind the EU power base and the decline of British sovereignty says Barnby, who supports his case with new public-domain documents.

DVD

Compiled by Jenny Hawke



PACKING FOR MARS:

One Man's Journey for the Truth

A Jacobmedia/Screen Addiction Production,
Arizona, USA, 2015 (120mins)
Available: www.screenaddiction.com

This is the latest offering from the producer-director team that brought us *Solar Revolution* (screened at the 2013 NEXUS Conference and reviewed in 20/03). They're also the filmmakers behind *The Klaus Dona Chronicles* (see 18/04).

Inspired by the 1970s science fiction novel *Alternative 3*, one man, armed with nothing but a camera and an open mind, sets forth on a journey to reveal the truth behind what may well be one of the most startling secrets: an elite group is said to be secretly building an exclusive off-world survival colony on the planet Mars.

Credible individuals have begun to emerge, claiming to have been actual Mars recruits—including the great-granddaughter of an historically significant US President.

Soon we are immersed in the lives of various researchers, experts and whistleblowers who share their extraordinary experiences.

These brilliant minds create a surreal picture of reality that transcends even the Mars agenda, metamorphosing into a cosmic cocktail proclaiming the wisdom of our times.

Among the many luminaries assembled by co-executive producer Frank Jacob are Andrew Basiago, Kerry Cassidy, Richard M. Dolan, Laura Eisenhower, Jose Escamilla, Dr James J. Hurtak, Dr Elizabeth Rauscher, Professor Ernst Senkowski, Bill Ryan, Luca Scantamburlo and Alfred Lambremont Webre, along with Stephen Bassett, Henry Deacon, Linda Moulton Howe, Credo Mutwa, Dr Michael E. Salla and David Wilcock.

The film explores aspects of quantum physics, time-space travel, evolutionary DNA, consciousness, top-secret space missions, breakaway civilisations, cycles of planetary precession and the multiverse.

Shocking and inspiring, this is a true story of enlightenment, a journey that forces us all to rethink our reality.

While in pursuit of factual evidence, the protagonist encounters a beautiful and mysterious free spirit on the road,

who joins him on the adventure.

The two quickly team up and explore clandestine locations where "black op" US government programs in time travel and teleportation have supposedly taken place. Charming their way uninvited into the private spheres of strangers, they uncover bizarre stories that validate the quest.

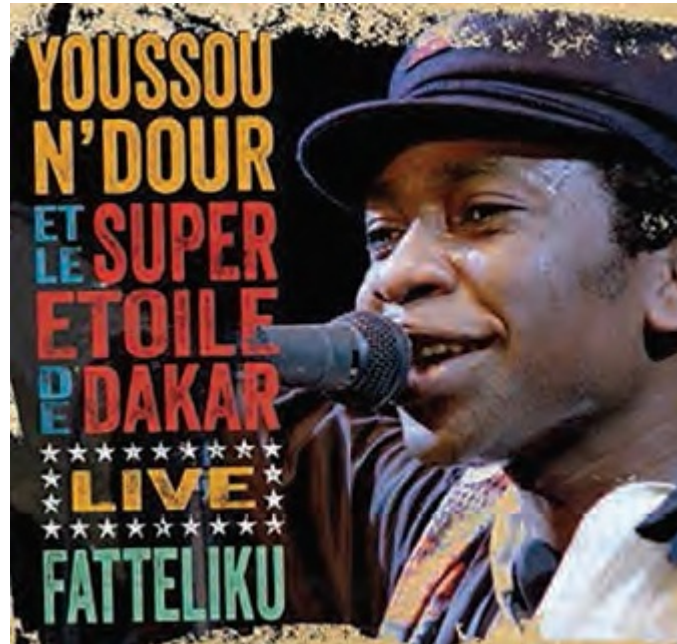
Driven by a visionary artistic approach that blends cinematic imagery with an original hypnotic soundtrack—it's "*Zeitgeist*" meets "What About Me?"—the film delves deeply into the dangerous philosophical territory of what many view as today's most profound ongoing discussion: UFO disclosure.

Is there a secret agenda involving a survival colony on Mars? Is there an elite caste who has inside information regarding ancient knowledge and humankind's true origin?

Is Earth on the verge of a massive shift in consciousness? The truth is stranger than fiction, just as the journey that unfolds.

MUSIC

Reviewed by Richard Giles



FATELIKU:

Live In Athens 1987

by Youssou N'Dour
et le Super Etoile de Dakar
Real World Records, UK, 2015 (51mins)

Distributors:

Australia—The Planet Co., www.theplanetcompany.com

UK — www.realworldrecords.com

On a cool night in Athens in October 1987, Peter Gabriel introduced his label's new act, Youssou N'Dour and his band, then unknown in Europe.

A Senegalese singer with passion and a unique voice, N'Dour brought electrified traditional Senegalese music to the fore. The concert soundtrack has only just been released.

"Captures the essence of the energy and excitement from that time," says *Roots* magazine. The CD includes tracks such as "Immigres" and "Sama Dom" ("My Daughter") as well as a version of the Peter Gabriel classic "In Your Eyes". Exciting and passionate, historic music.

AMANE CER ANDINO

by Inkuyo

Celestial Harmonies, 2015 (51mins)

Distributors: Aust—The Planet Co., www.theplanetcompany.com;

USA— www.harmonies.com

The eighth album from Inkuyo covers traditional tunes and songs from the Andes, the third track a tribute to late 18th-century Bolivian independence leader Tupac Katari.

There are songs of homage to day-labourers, the Aparapita, and to the Achachilas, who are nature spirits of the mountains and control the weather.

There are songs for a dance called Tinku, which removes evil spirits, and another called Morenada, in memory of the African slave period. Exhilarating Andean music.

CELEBRATION OF A LEGEND

by George Telek

Wantok Musik, PNG, 2015 (66 mins)

Distributors:

Aust—The Planet Co., www.theplanetcompany.com;

PNG— www.wantokmusik.org, www.telek.com

George Telek is a musical elder in Papua New Guinea. His career began in the 1970s with The Moab Stringband, and his great success came in the 1980s with the Painim Wok Band.

Of Tolai heritage, he hails from Rabaul, the town overshadowed by an active volcano. His styles range from traditional stringband to a pop-and-rock genre that he devised and progressed in PNG (see 18/02).

Telek sings of freedom, village life and the rhythms of nature. A fitting tribute.

ZOY ZOY

by Tal National

FatCat Records, UK, 2015 (47mins)

Distributors:

Aust—The Planet Co., www.theplanetcompany.com

UK— FatCat Records, www.fat-cat.co.uk, www.talnational.com

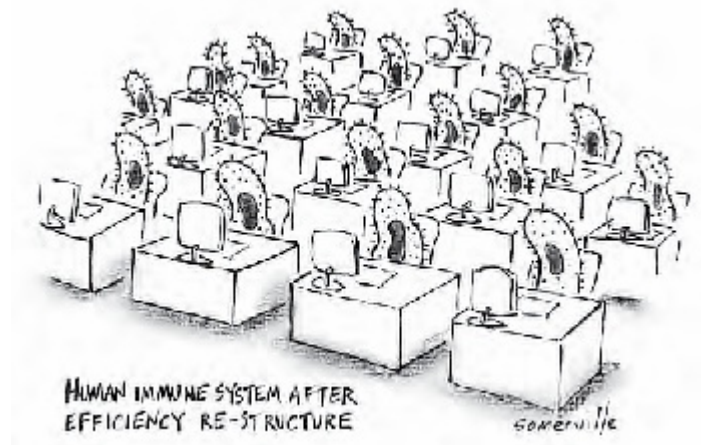
Tal National received global acclaim with the 2013 release, *Kaani*. The band had spent the previous decade crisscrossing their Niger homeland, selling their CDs on the streets.

Tal National, with six core members, has great pride in Niger's ethnic diversity and reflect it in their music. This second international release, *Zoy Zoy*, amplifies the energy with bright, colourful music that at times utilises a wall-of-sound technique.

The musicians are masters of quick-speed time changes, moving from slow blues guitar solos to impromptu dance breaks. Now the most popular group in Niger, Tal National is also well established on the world scene.

Cartoons

by Phil Somerville





"He only lights up when he's in an active Will Zone."

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